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Federal Agencies

March 7, 2006

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Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Art Unit 2631

Attn: Certificate of Correction Branch

Re: U.S. Issued Patent

Patent No. 6,853,690; Issued: February 8, 2005

For: **Method, System and Apparatus for Balanced Frequency Up-  
Conversion of a Baseband Signal and 4-Phase Receiver and  
Transceiver Embodiments**

Inventors: Sorrells *et al.*

Our Ref: 1744.0450003

Certificate

MAR 10 2006

Sir:

of Correction

Transmitted herewith for appropriate action are the following documents:

1. Request for Certificate of Correction Under 37 C.F.R. § 1.322 (with copy of 144 pages of formal drawings, filed on November 16, 2004, and return date-stamped postcard);
3. Certificate of Correction (Form PTO/SB/44); and
4. Return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

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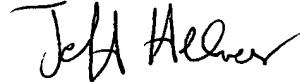
MAR 13 2006

Commissioner for Patents  
March 7, 2006  
Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



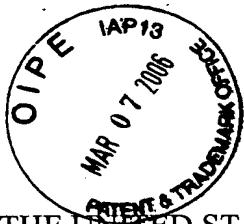
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Attorney for Patentees  
Registration No. 44,757

JTH/lam  
Enclosures

502629.1

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent of:

Sorrells *et al.*

Patent. No.: 6,853,690

Issued: February 8, 2005

For: **Method, System and Apparatus for  
Balanced Frequency Up-  
Conversion of a Baseband Signal  
and 4-Phase Receiver and  
Transceiver Embodiments**

Confirmation No.: 7843

Art Unit: 2631

Examiner: Phu, Phuong M.

Atty. Docket: 1744.0450003

**Request for Certificate of Correction  
Under 37 C.F.R. § 1.322**

*Attn: Certificate of Correction Branch*

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

It is hereby requested that a Certificate of Correction under 37 C.F.R. § 1.322 be issued for the above-captioned United States Patent. This Certificate of Correction is being requested due to mistakes which appear in the printed patent. These mistakes were made by the U.S. Patent and Trademark Office.

Specifically, the printed patent contains the following errors for which a Certificate of Correction is respectfully requested:

The drawings that issued with the patent are incorrect. On November 16, 2004, patentees filed 144 pages of formal drawings to replace the originally filed informal drawings.

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In addition to the drawing correction, an Amendment was filed on November 16, 2004 to make some changes to the specification. These changes were not reflected in the issued patent. The changes are as follows:

In column 5, line 65, replace "FIGS. 55A-D illustrates" with --FIGS. 55A-D, which includes FIGs. 55A, FIGs. 55B1-55B4, FIGs. 55C1-55C3, and FIG. 55D, illustrates--.

In column 5, line 67, after "invention;", insert -- FIGs. 55B1-55B4 should be referred to for all references to FIG. 55B in the specification; FIGs. 55C1-55C3 should be referred to for all references to FIG. 55C in the specification;--.

In column 6, line 45, replace "FIG. 70A illustrates" with -- FIG. 70A, which includes FIG. 70A1 and FIG. 70A2, illustrates--.

In column 6, line 46, after "invention;", insert -- FIGs. 70A1 and 70A2 should be referred to for all references to FIG. 70 in the specification;--.

In column 6, line 52, replace "FIG. 70E illustrates" with -- FIG. 70E, which includes FIG. 70E1 and 70E2, illustrates--.

In column 6, line 53, after "invention;", insert -- FIGs. 70E1 and 70E2 should be referred to for all references to FIG. 70 in the specification;--.

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**Remarks**

The above-noted corrections do not involve such changes in the patent as would constitute new matter or would require reexamination.

A completed Form PTO/SB/44 accompanies this request, with the above-noted corrections printed thereon. Accordingly, a Certificate of Correction is believed proper and issuance thereof is respectfully requested.

The Commissioner is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

  
Jeffrey T. Helvey  
Attorney for Patentees  
Registration No. 44,757

Date: 3/7/06

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

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Amendment

Applicants: Sorrells *et al.*

Application No.: 09/525,615

Filed: March 14, 2000

For: Method, System and Apparatus for  
Balanced Frequency Up-Conversion of a  
Baseband Signal and 4-Phase Receiver and  
Transceiver

When receipt stamp is placed hereon, the USPTO acknowledges receipt of the following documents:

1. SKGF Cover Letter;
2. Issue Fee Transmittal (Form PTOL-85B);
3. Fee Transmittal (Form PTO/SB/17);
4. Amendment Under 37 C.F.R. § 1.312;
5. Letter to the Draftsman;
6. 144 sheets of formal drawings, approval of which is respectfully requested;
7. Return postcard; and
8. PTO-2038 Credit Card Payment Form for \$1,373.00 to cover:  
\$1,370.00 Issue Fee; and  
\$ 3.00 Advance copies of patent.

Due Date: November 18, 2004

Art Unit: 2631

Confirmation No.: 7843

Examiner: Phu, Phuong M.

Docket: 1744.0450003

Atty: JTH



Mail Stop: Issue Fee

Please Date Stamp and Return to Our Courier

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**UNITED STATES PATENT AND TRADEMARK OFFICE**  
**CERTIFICATE OF CORRECTION**

PATENT NO: 6,853,690

DATED: February 8, 2005

INVENTORS: Sorrells *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

Drawings

Please replace all of the drawings with the attached 144 pages of formal drawings.

Column 5

In line 65, please replace "FIGS. 55A-D illustrates" with --FIGS. 55A-D, which includes FIGs. 55A, FIGs. 55B1-55B4, FIGs. 55C1-55C3, and FIG. 55D, illustrates--.

In line 67, after "invention;", please insert -- FIGs. 55B1-55B4 should be referred to for all references to FIG. 55B in the specification; FIGs. 55C1-55C3 should be referred to for all references to FIG. 55C in the specification;--.

Column 6

In line 45, please replace "FIG. 70A illustrates" with -- FIG. 70A, which includes FIG. 70A1 and FIG. 70A2, illustrates--.

In line 46, after "invention;", please insert -- FIGs. 70A1 and 70A2 should be referred to for all references to FIG. 70 in the specification;--.

In line 52, please replace "FIG. 70E illustrates" with -- FIG. 70E, which includes FIG. 70E1 and 70E2, illustrates--.

In line 53, after "invention;", please insert -- FIGs. 70E1 and 70E2 should be referred to for all references to FIG. 70 in the specification;--.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

1100 New York Avenue, NW

Washington DC 20005-3934

Atty. Dkt. No. 1744.0450003

This collection of information is required by 37 CFR 1.322, 1.323 and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

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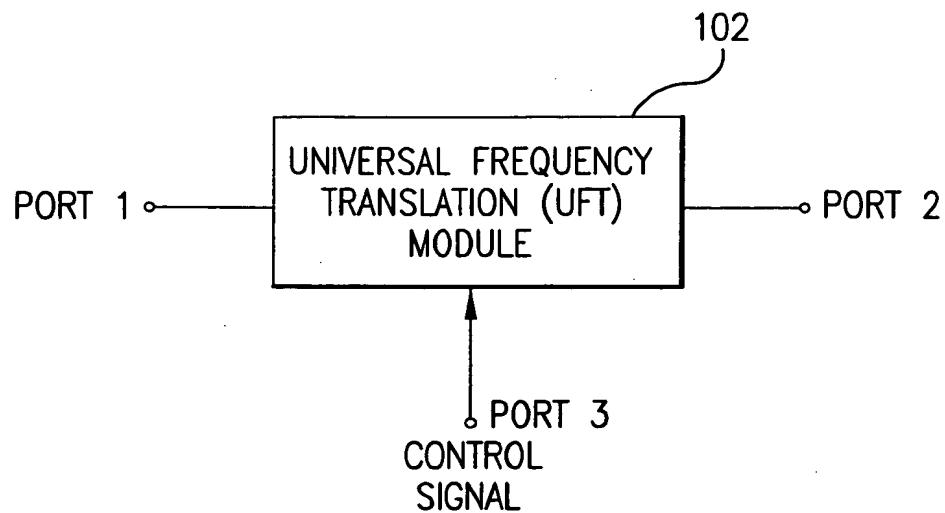
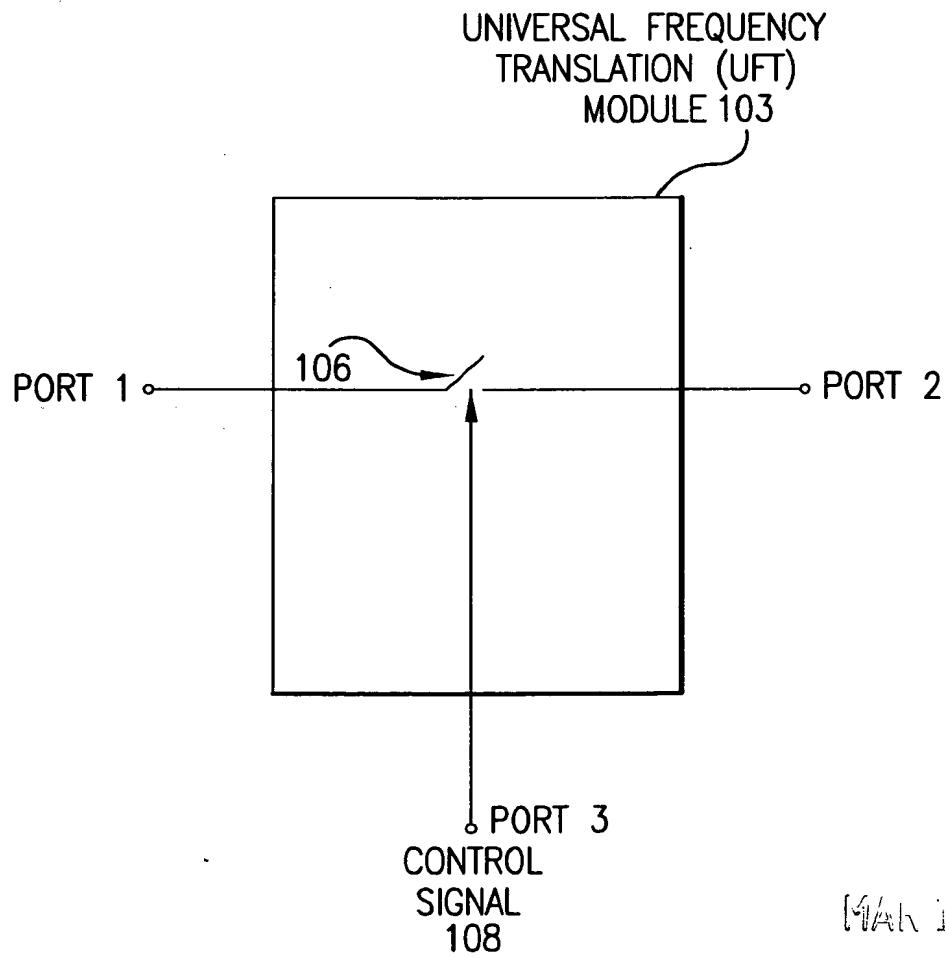


FIG. 1A



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FIG. 1B

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UNIVERSAL FREQUENCY  
DOWN-CONVERSION  
(UFD) MODULE 114

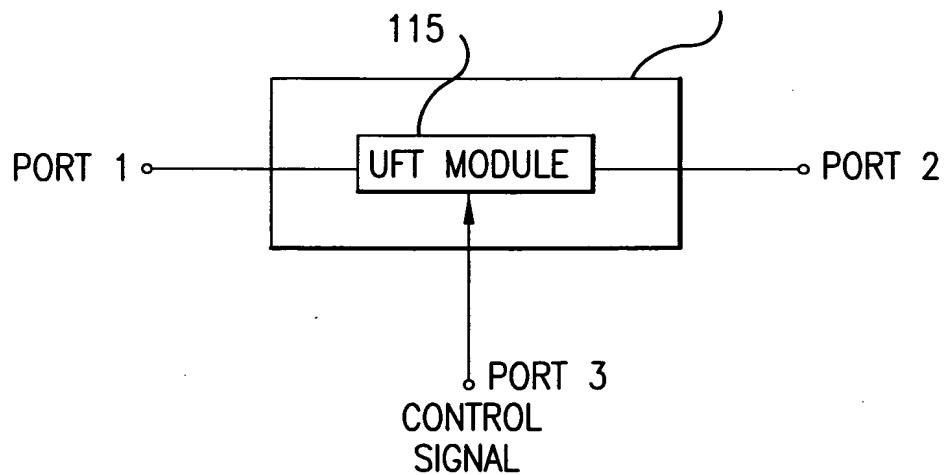


FIG. 1C

UNIVERSAL FREQUENCY  
UP-CONVERSION  
(UFU) MODULE 116

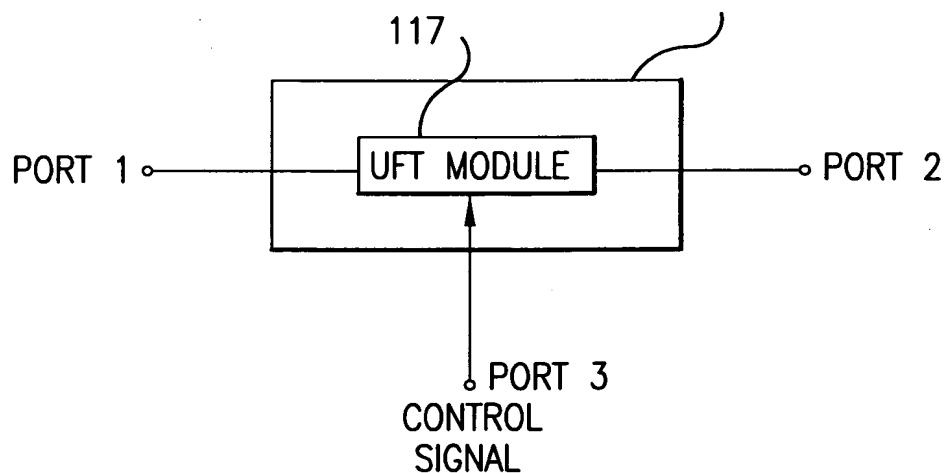


FIG. 1D

114-116

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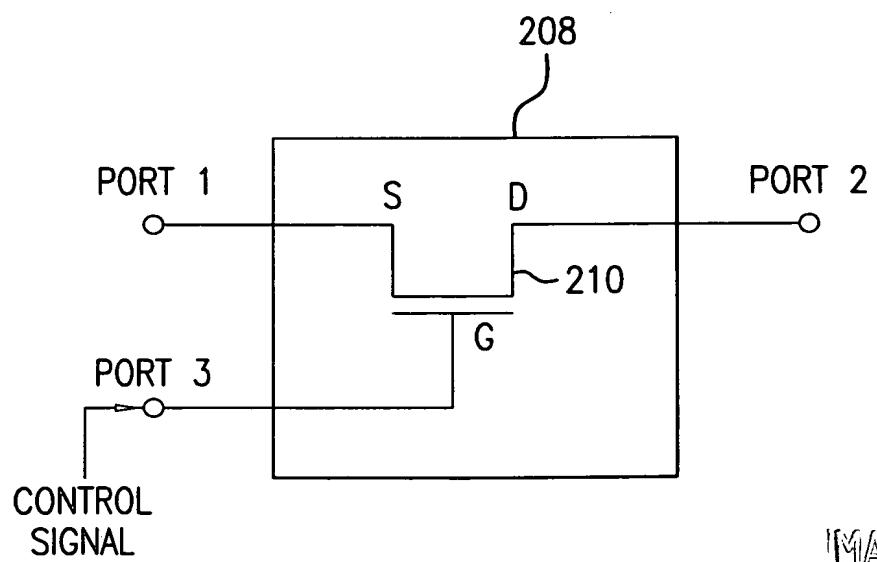
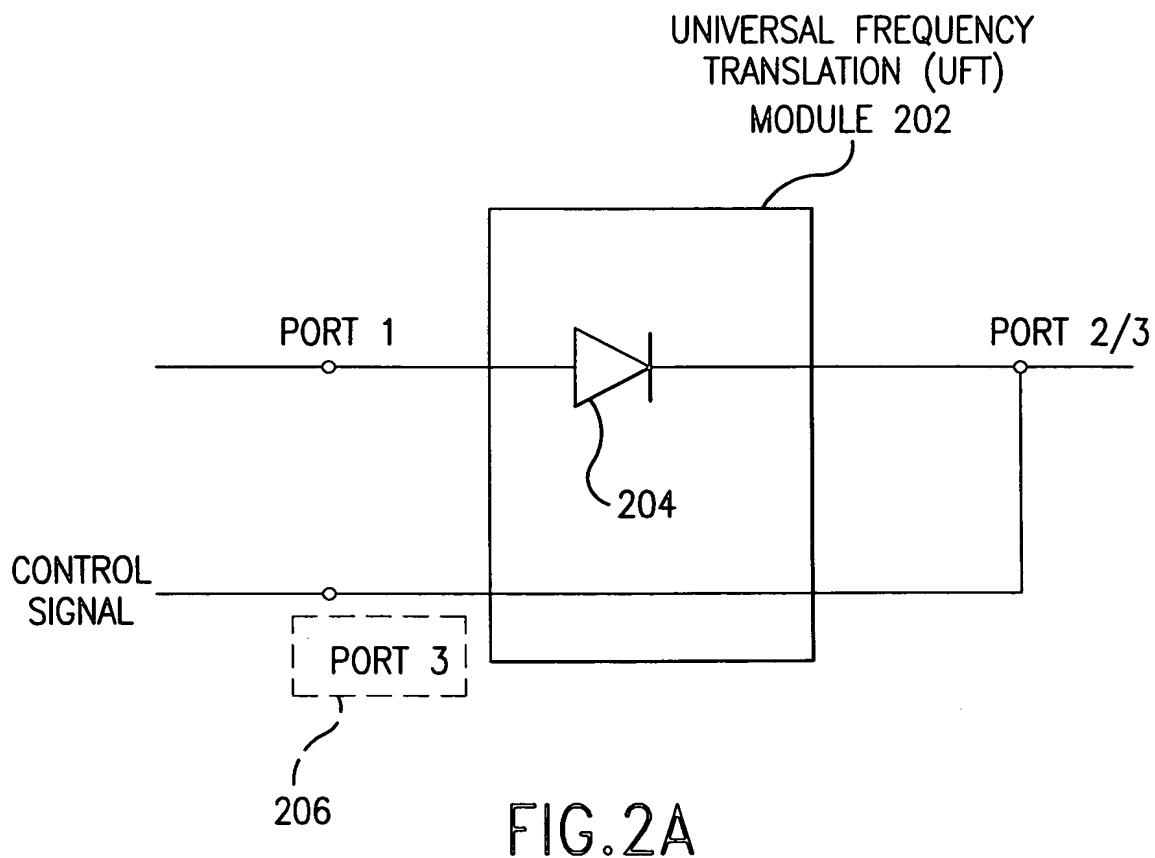


FIG.2B

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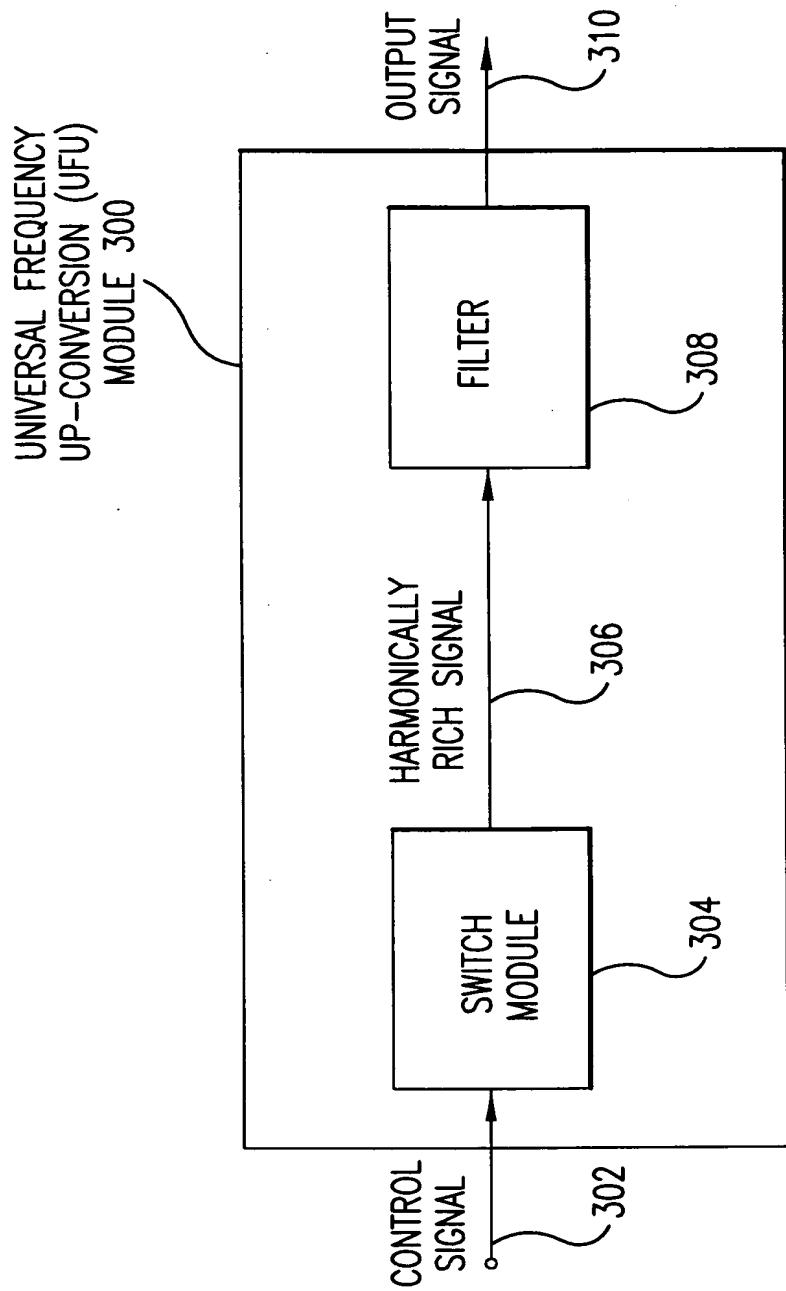


FIG. 3

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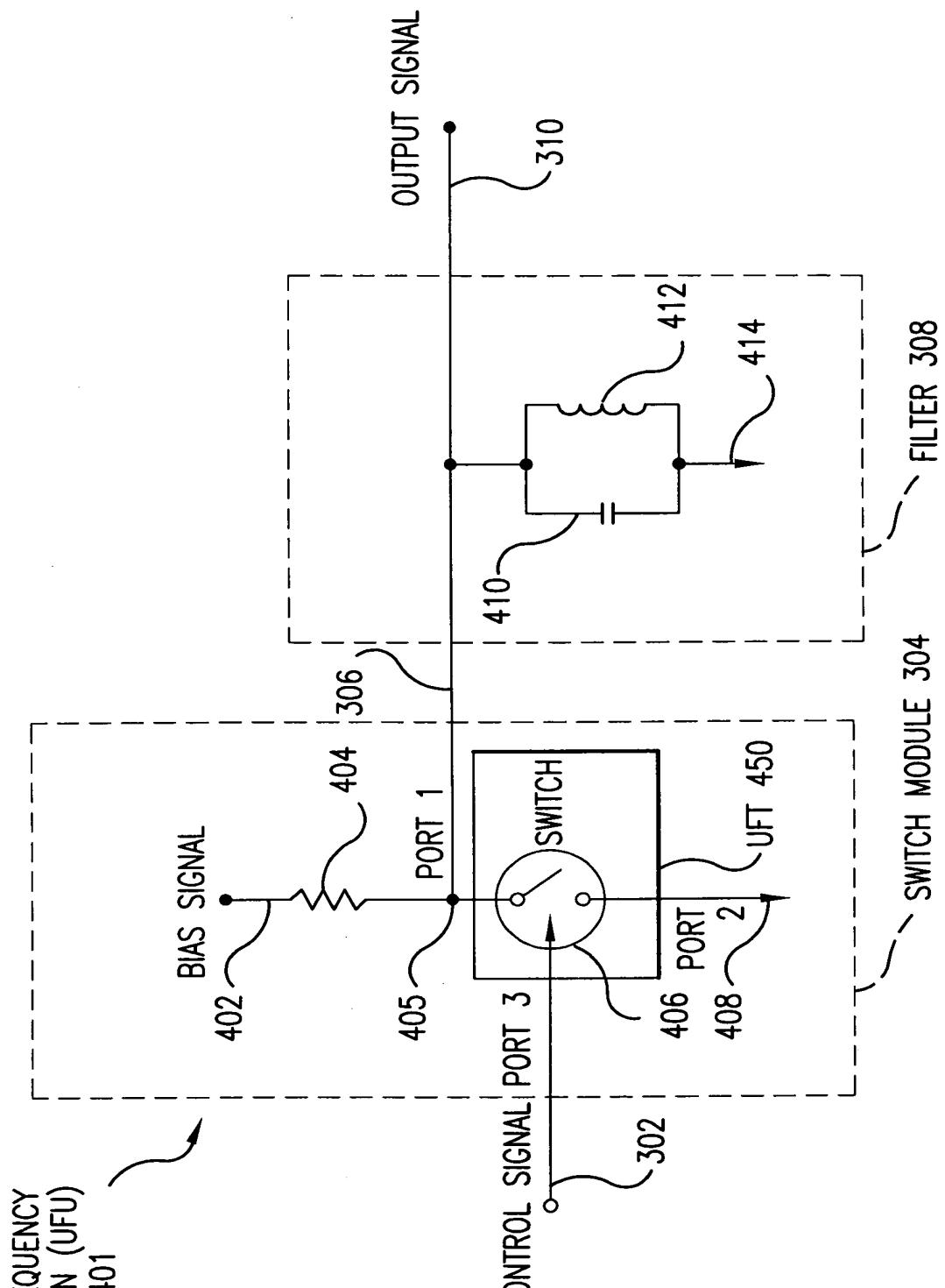


FIG. 4

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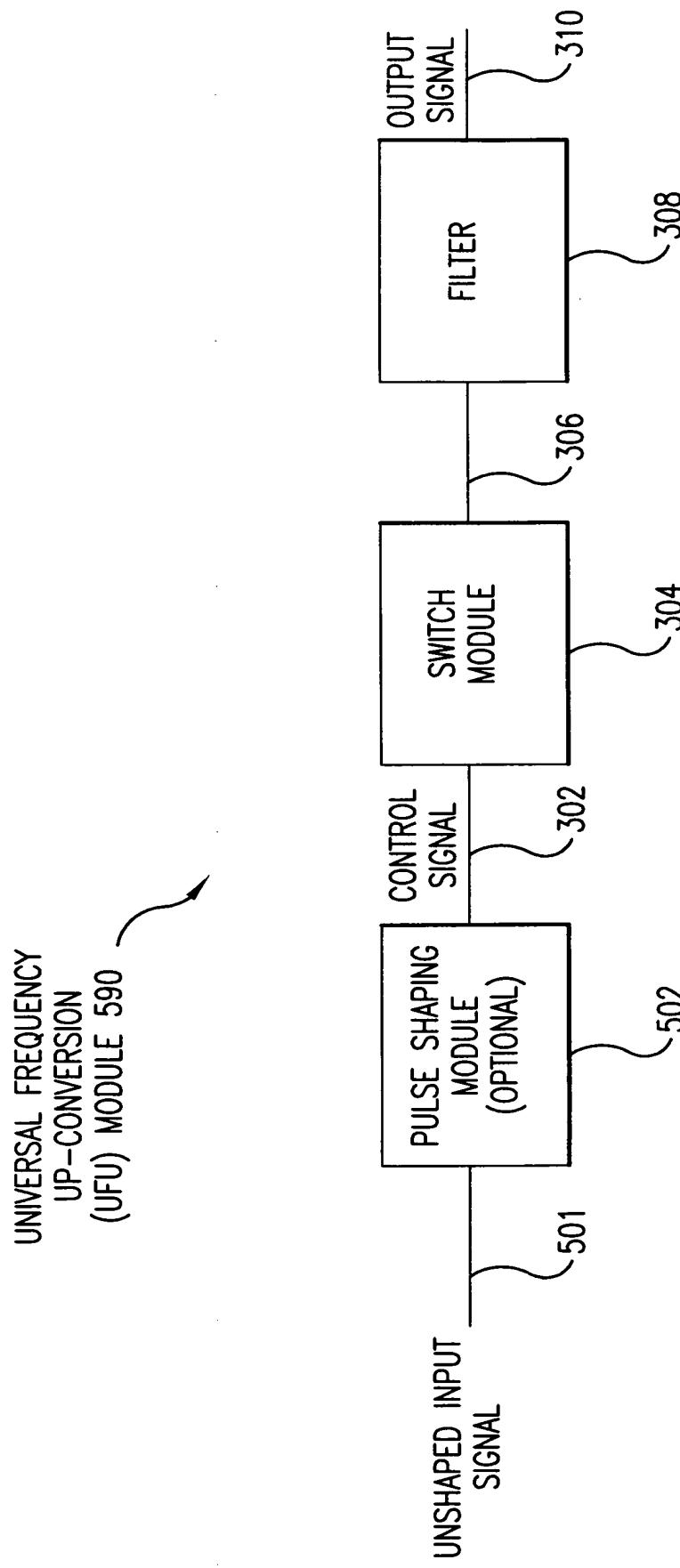


FIG. 5

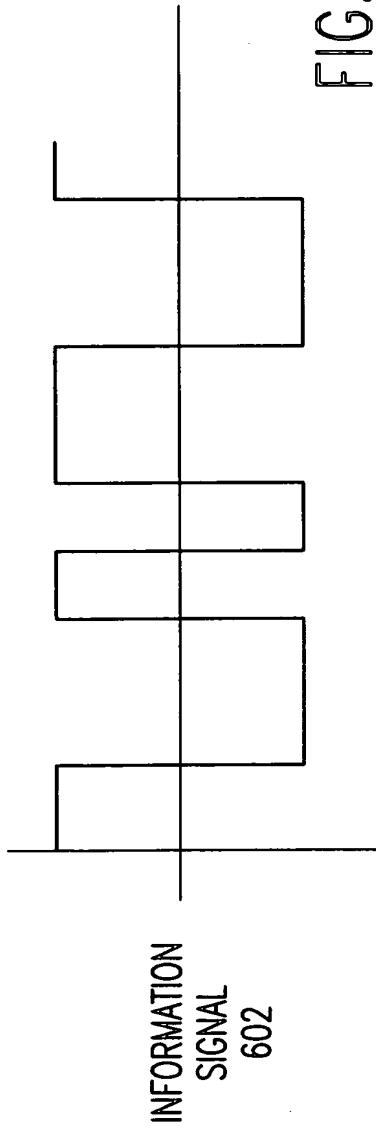


FIG. 6A

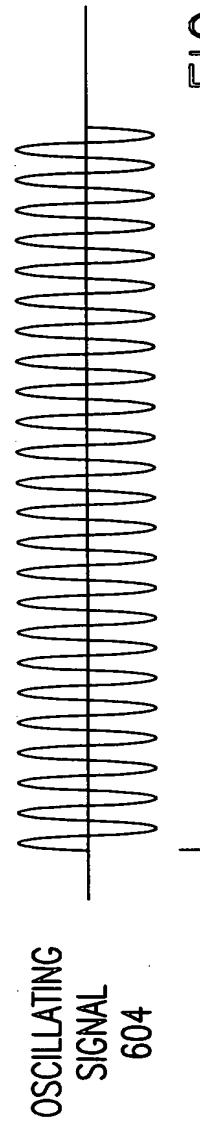


FIG. 6B

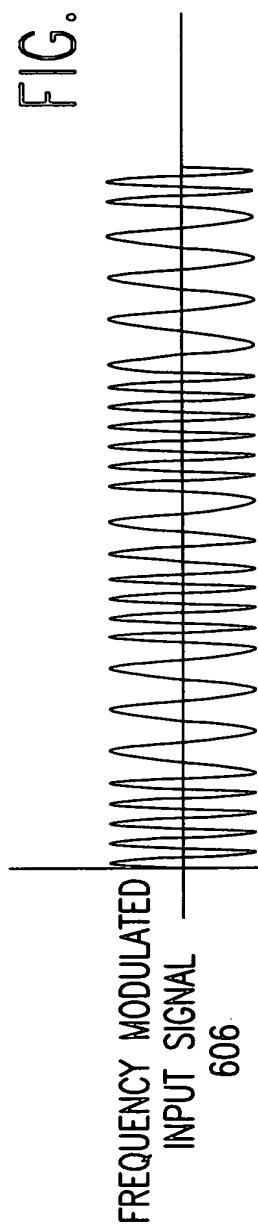


FIG. 6C

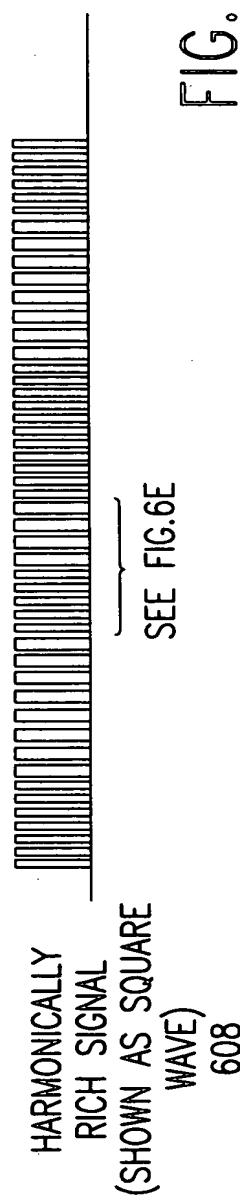
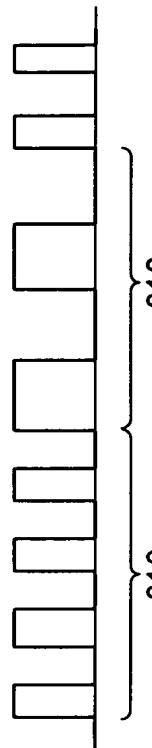


FIG. 6D

EXPANDED VIEW OF  
HARMONICALLY RICH  
SIGNAL 608



SEE FIG. 6F

FIG. 6E

HARMONICS OF  
SIGNAL 610  
(SHOWN SEPARATELY)

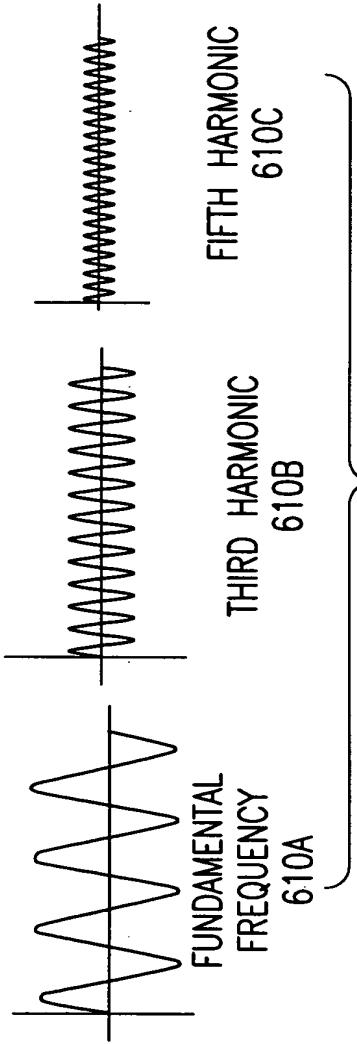


FIG. 6F

HARMONICS OF  
SIGNAL 612  
(SHOWN SEPARATELY)

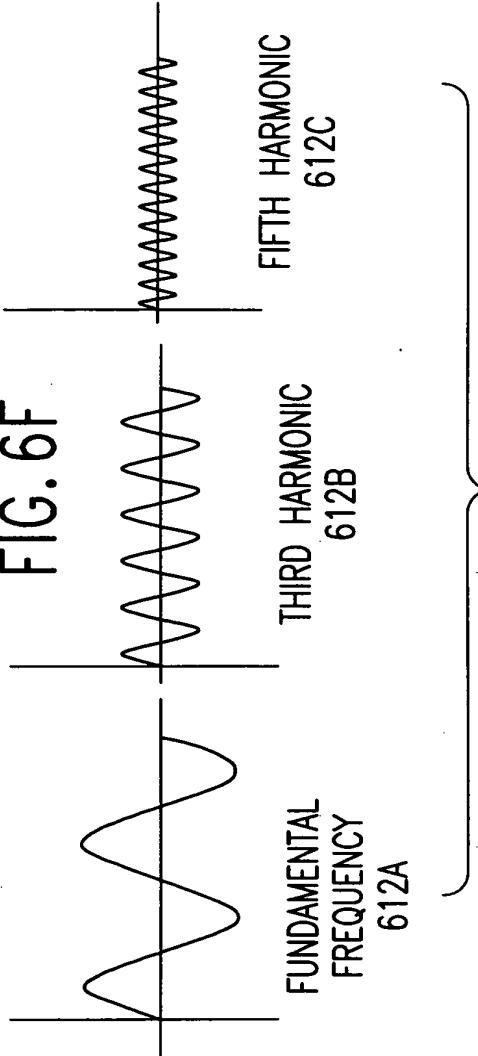


FIG. 6G

HARMONICS OF  
SIGNALS 5410 AND  
612  
(SHOWN SIMULTANEOUSLY  
BUT NOT SUMMED)

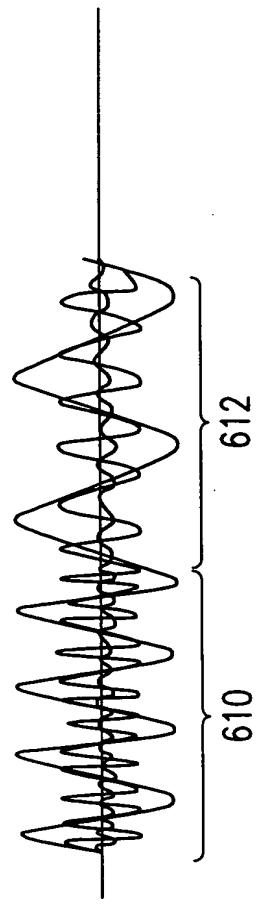


FIG. 6H

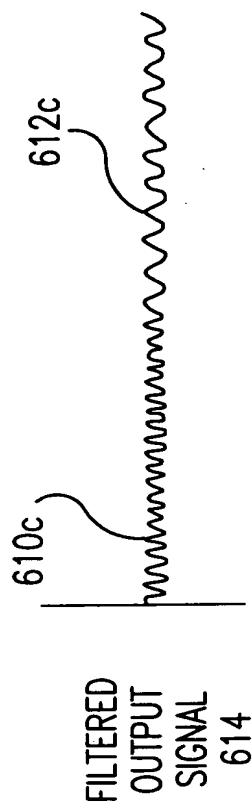


FIG. 6I

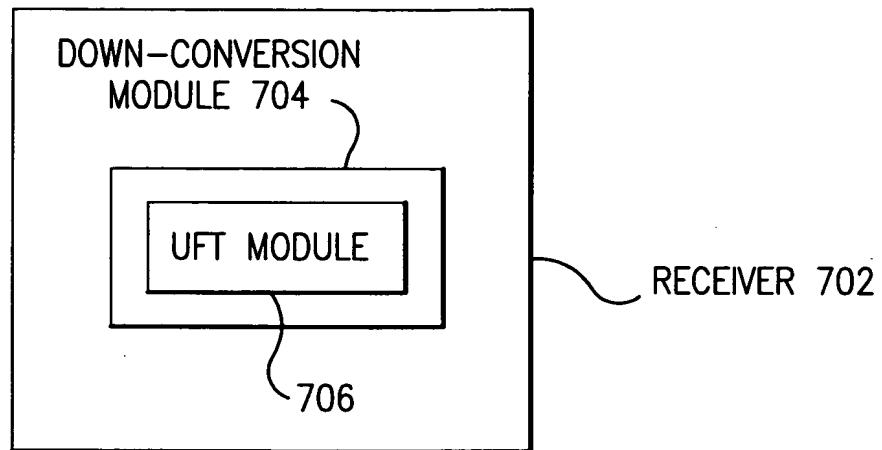


FIG. 7

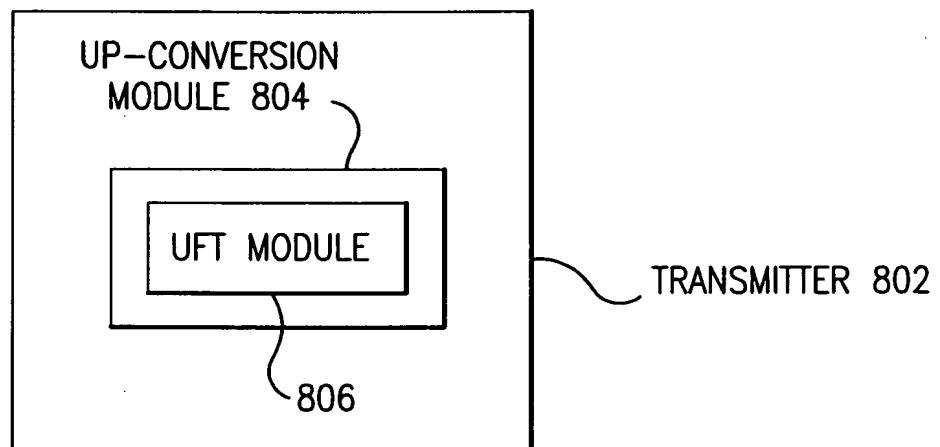


FIG. 8

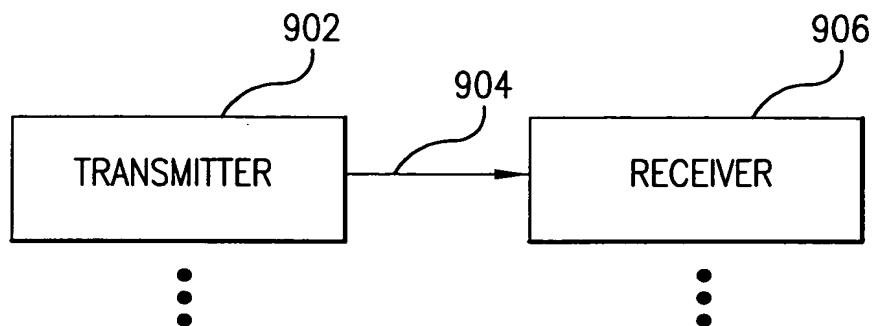


FIG. 9

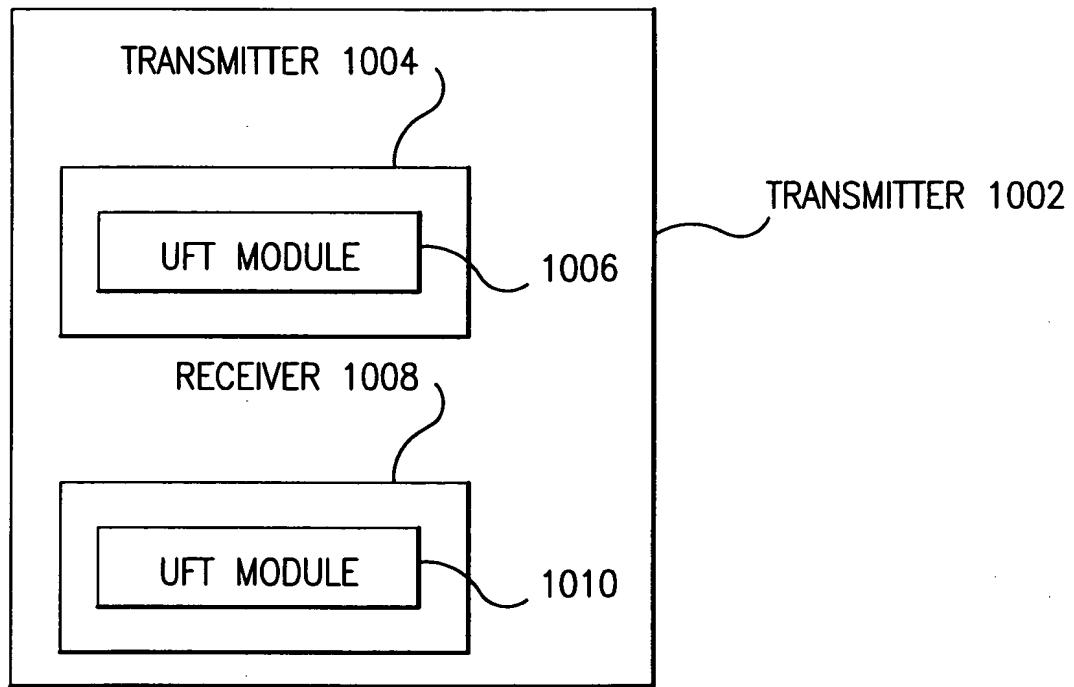


FIG. 10

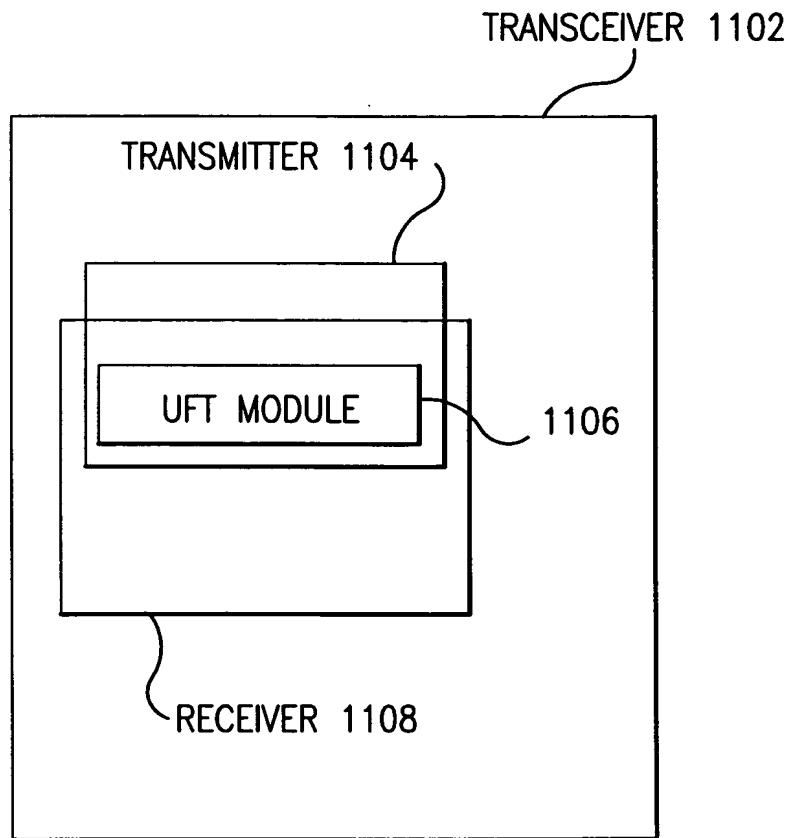


FIG. 11

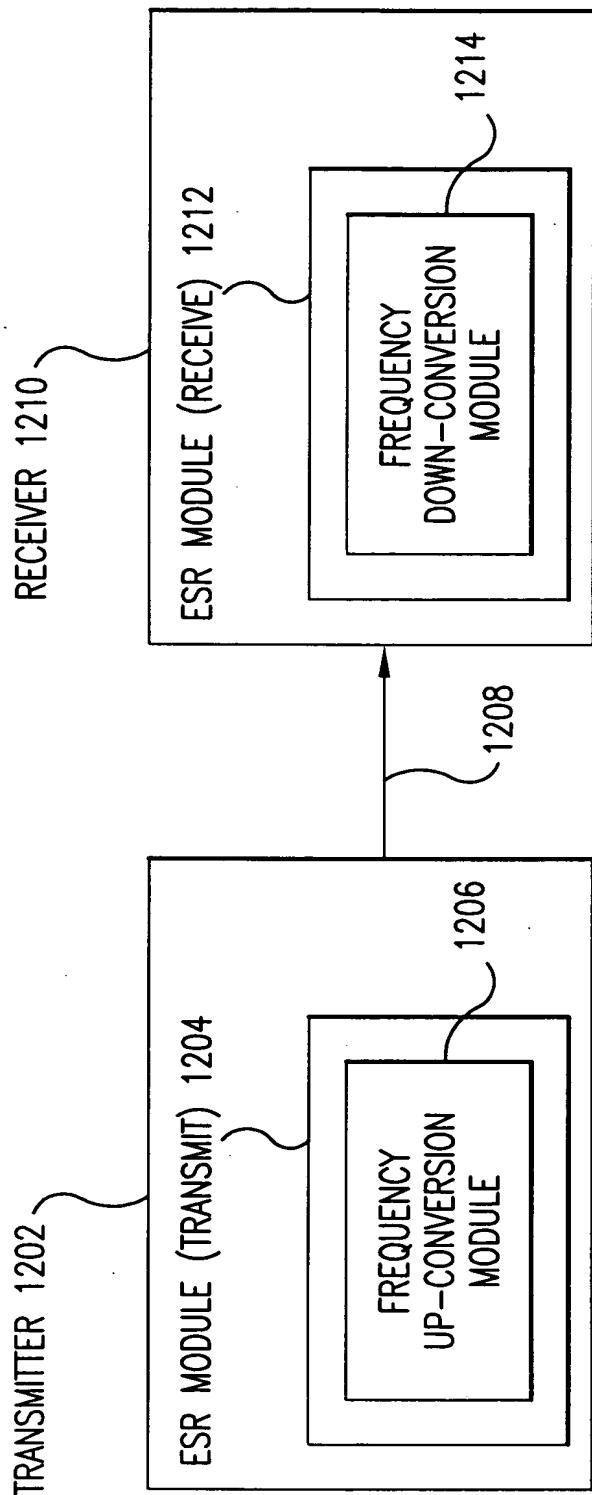


FIG. 12

UNIFIED DOWN-CONVERTING  
AND FILTERING (UDF) MODULE 1302

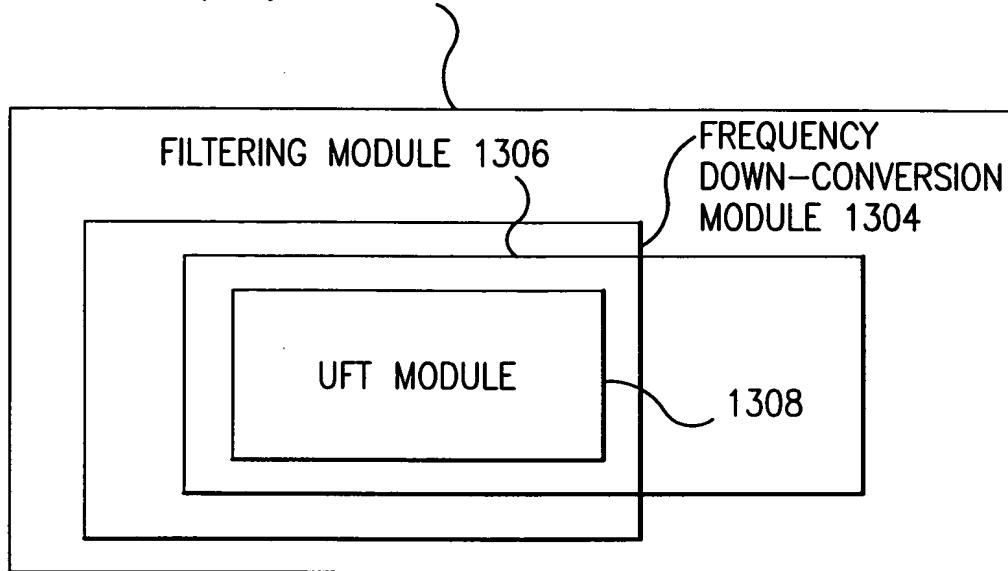


FIG. 13

RECEIVER 1402

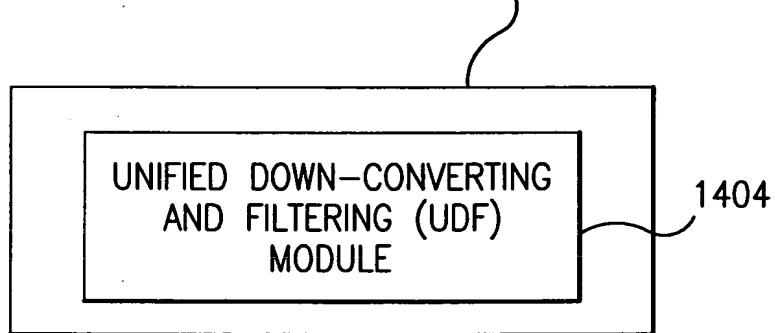


FIG. 14

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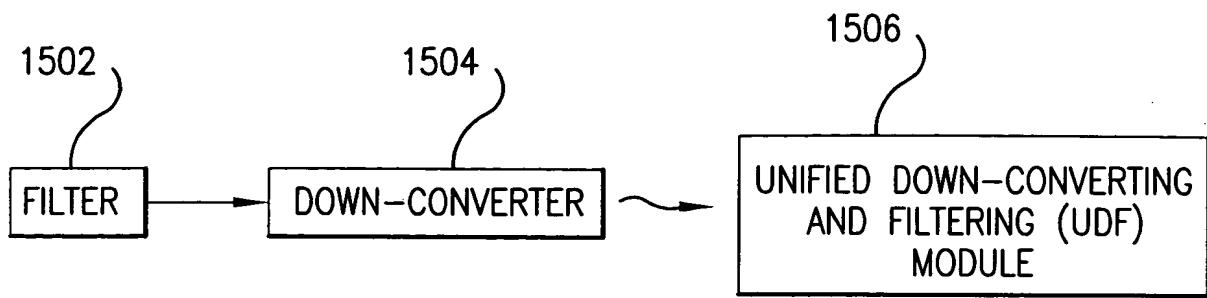


FIG. 15A

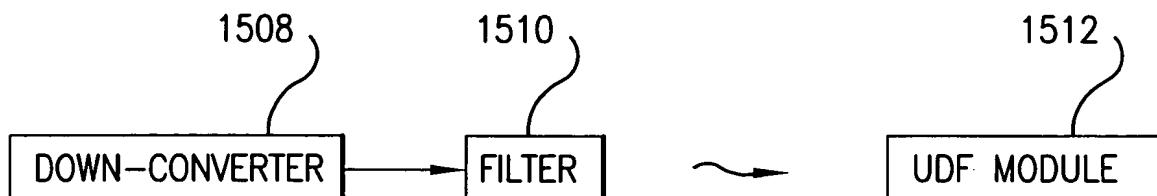


FIG. 15B

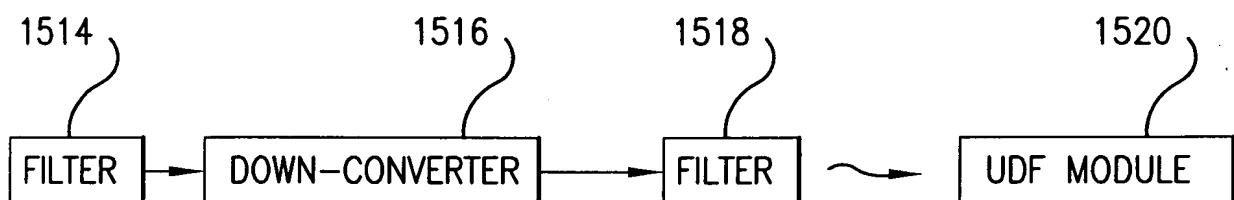


FIG. 15C



FIG. 15D

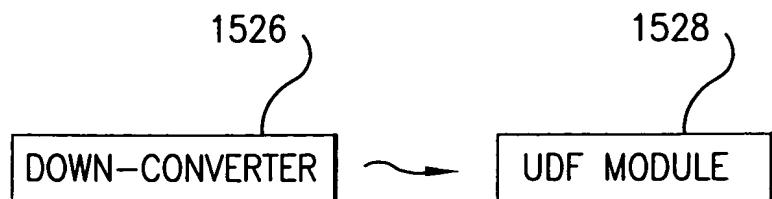


FIG. 15E

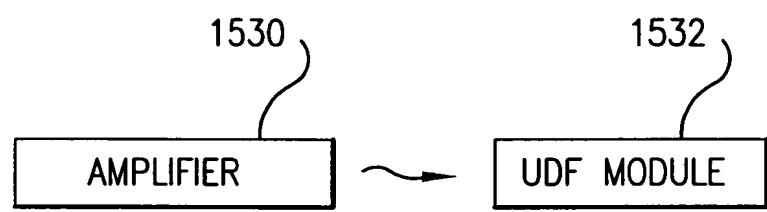


FIG. 15F

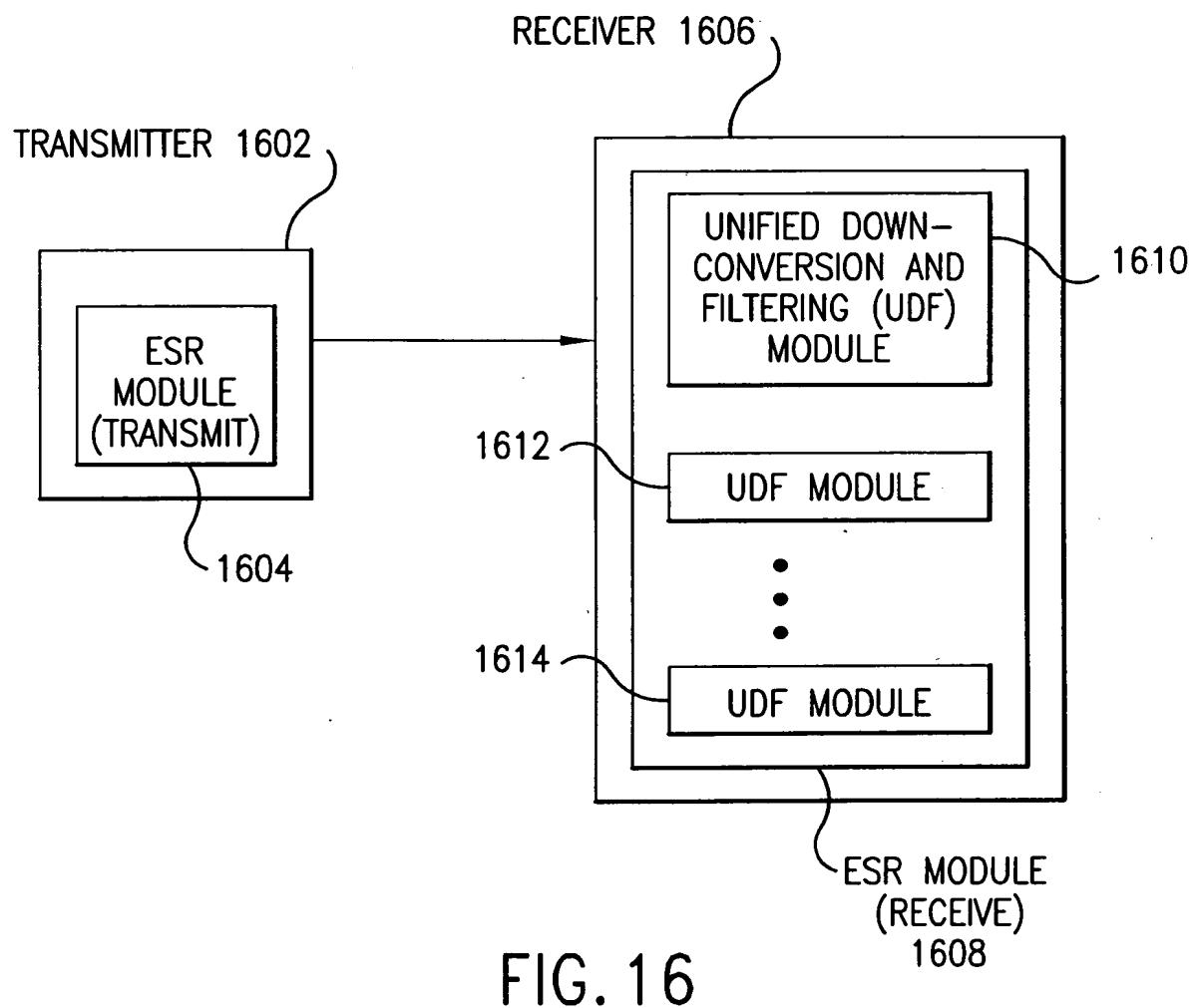


FIG. 16

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UNIFIED DOWNCONVERTING AND  
FILTERING (UDF) MODULE 1702

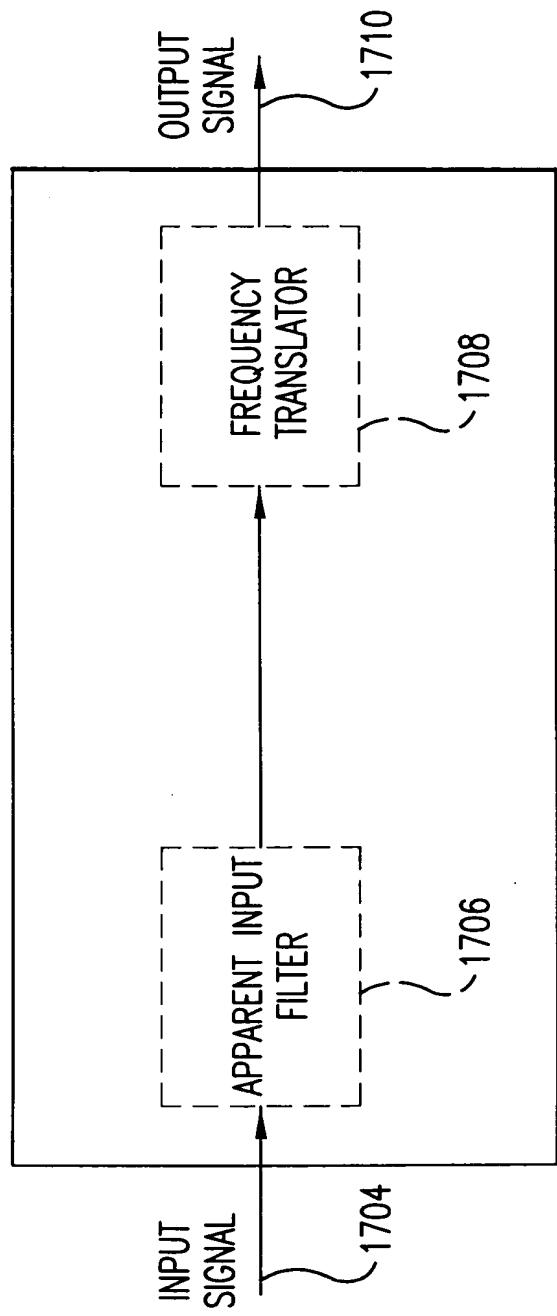


FIG. 17

1802 } 

TIME NODE	$t-1$ (RISING EDGE OF $\phi_1$ )	$t-1$ (RISING EDGE OF $\phi_2$ )	$t$ (RISING EDGE OF $\phi_1$ )	$t$ (RISING EDGE OF $\phi_2$ )	$t+1$ (RISING EDGE OF $\phi_1$ )
1902	$V_{t-1}$ <u>1804</u>	$V_{t-1}$ <u>1808</u>	$V_t$ <u>1816</u>	$V_t$ <u>1826</u>	$V_{t+1}$ <u>1838</u>
1904	—	$V_{t-1}$ <u>1810</u>	$V_{t-1}$ <u>1818</u>	$V_t$ <u>1828</u>	$V_t$ <u>1840</u>
1906	$V_{t-1}$ <u>1806</u>	$V_{t-1}$ <u>1812</u>	$V_t$ <u>1820</u>	$V_t$ <u>1830</u>	$V_{t+1}$ <u>1842</u>
1908	—	$V_{t-1}$ <u>1814</u>	$V_{t-1}$ <u>1822</u>	$V_t$ <u>1832</u>	$V_t$ <u>1844</u>
1910	—	<u>1807</u> —	$V_{t-1}$ <u>1824</u>	$V_{t-1}$ <u>1834</u>	$V_t$ <u>1846</u>
1912	—	— <u>1815</u> —	$V_{t-1}$ <u>1836</u>	$V_{t-1}$ <u>1848</u>	
1918	—	— —	—	—	$V_t$ <u>1850</u> $0.1*V_{t-1}$ $0.8*V_{t-1}$

FIG. 18

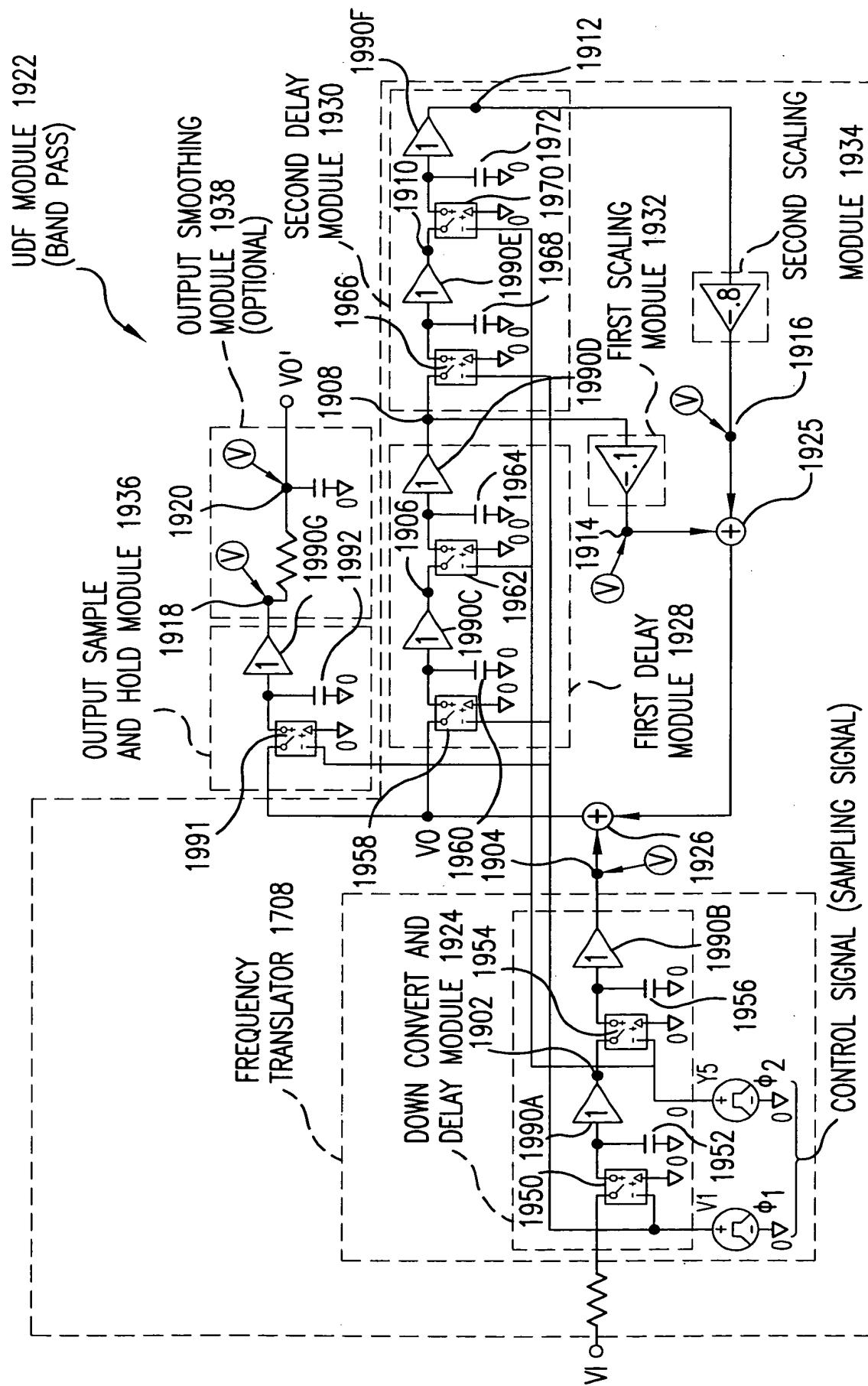


FIG. 19

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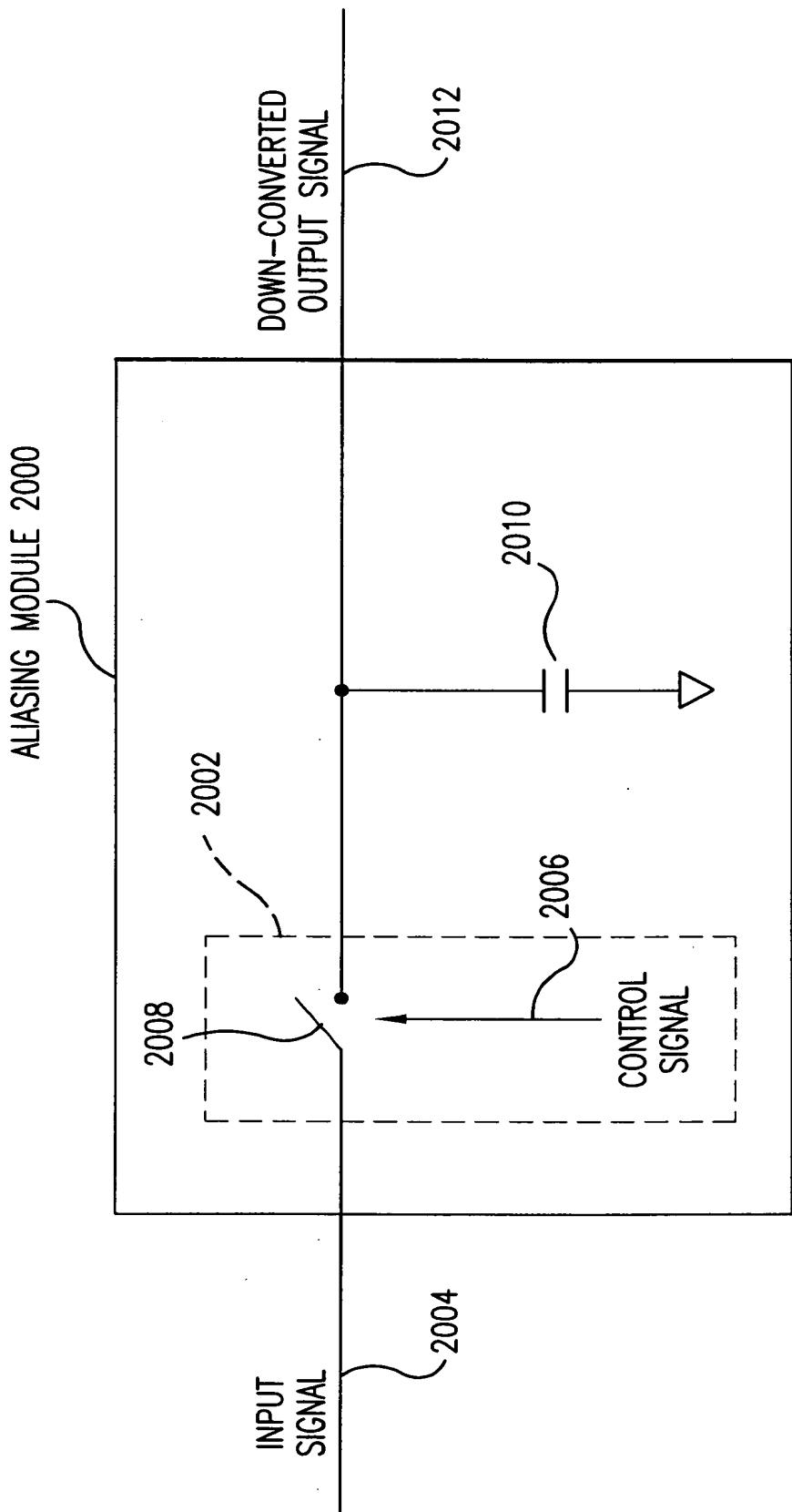


FIG. 20A

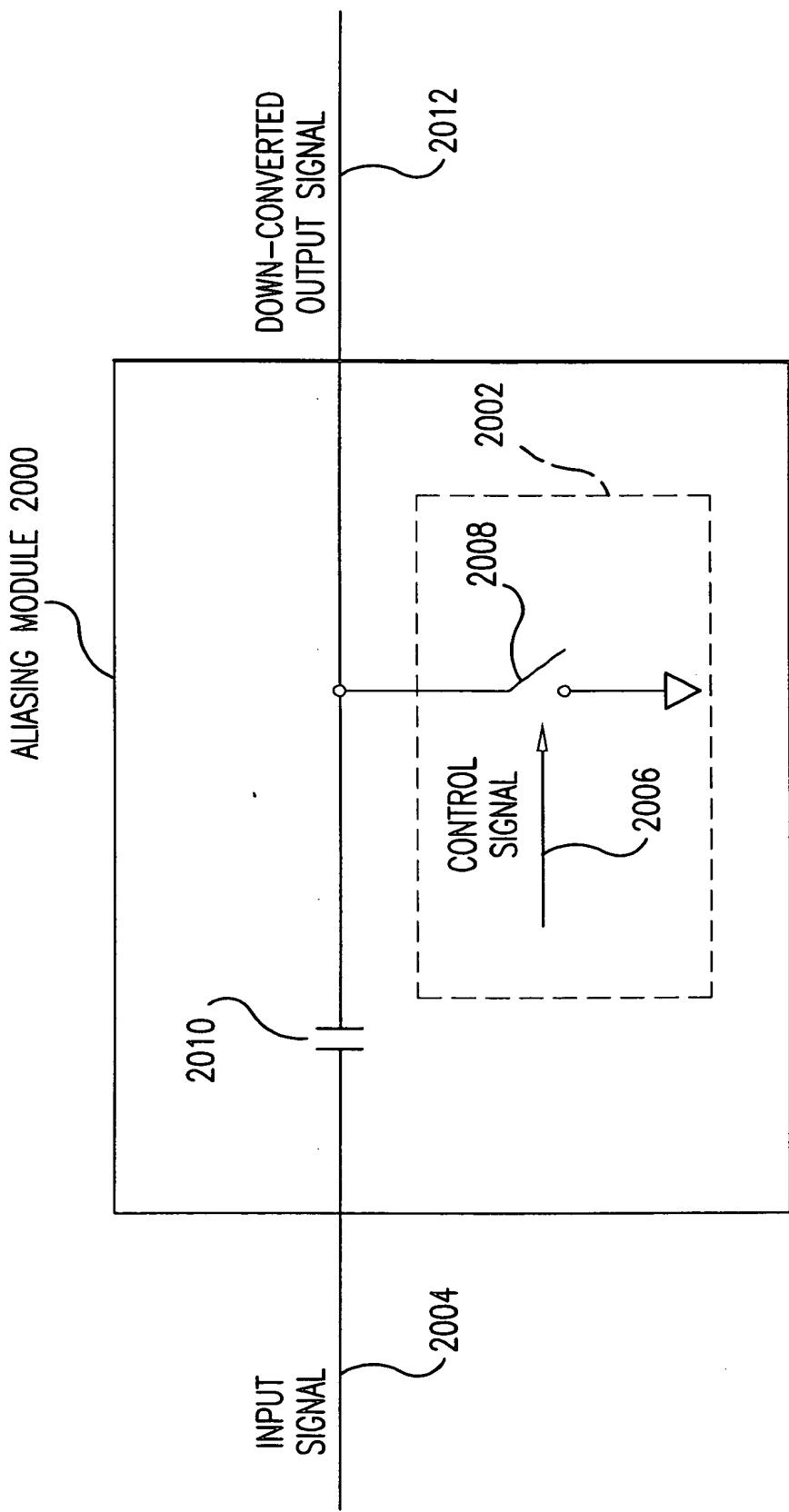


FIG. 20A-1

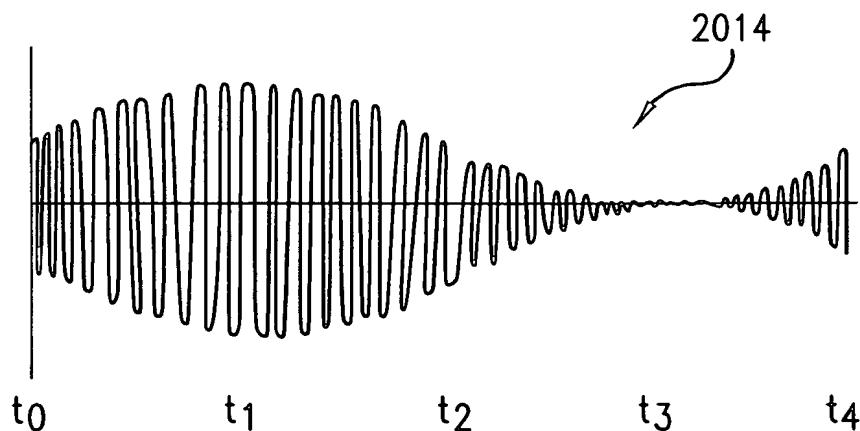


FIG. 20B

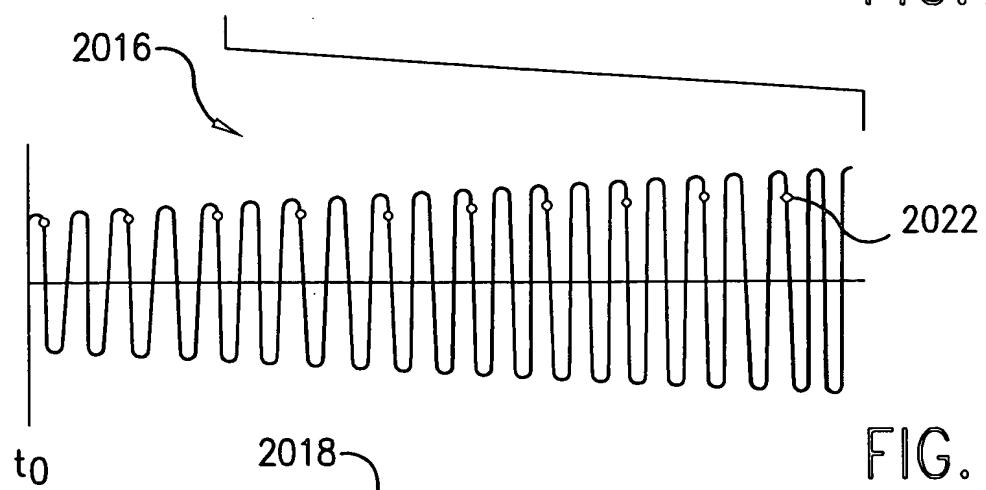


FIG. 20C

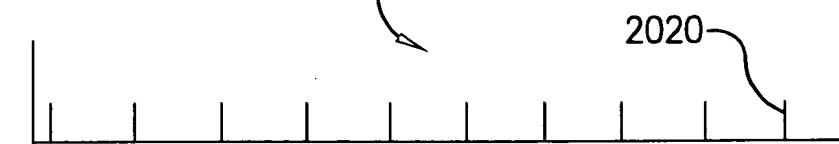


FIG. 20D

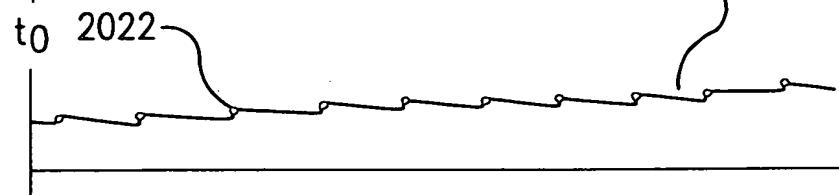


FIG. 20E

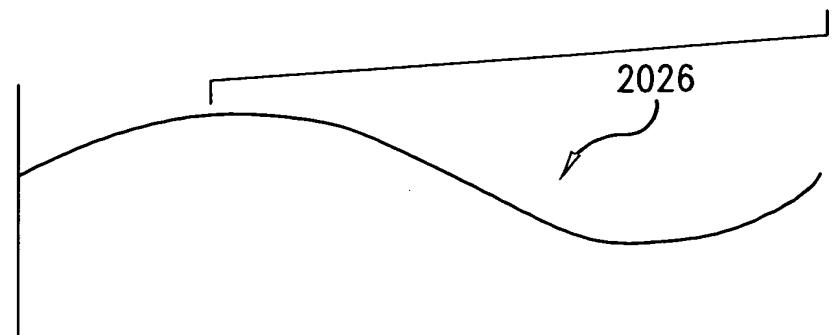


FIG. 20F

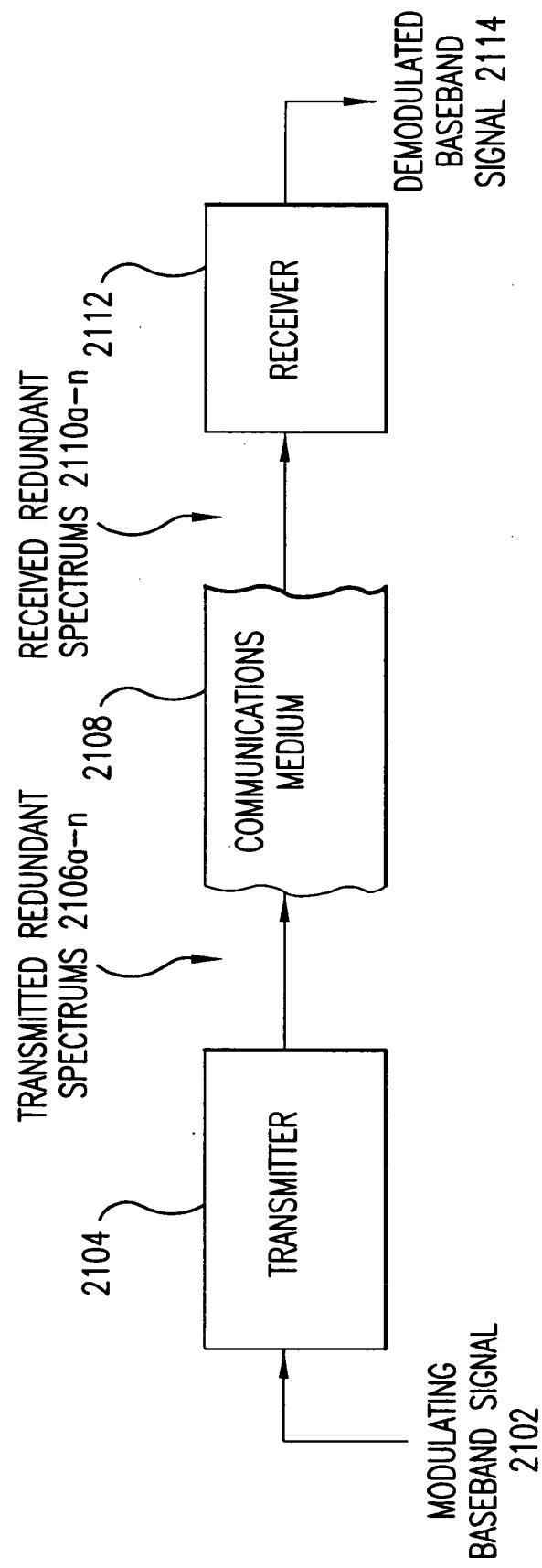


FIG. 21

MARK 1

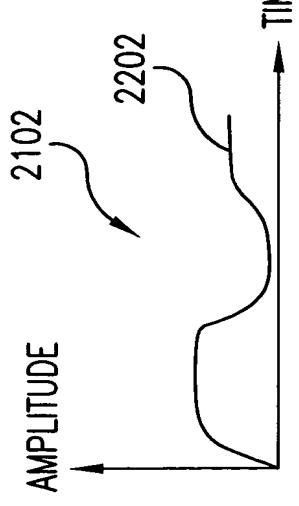


FIG. 22A

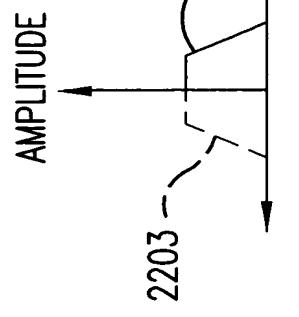


FIG. 22B

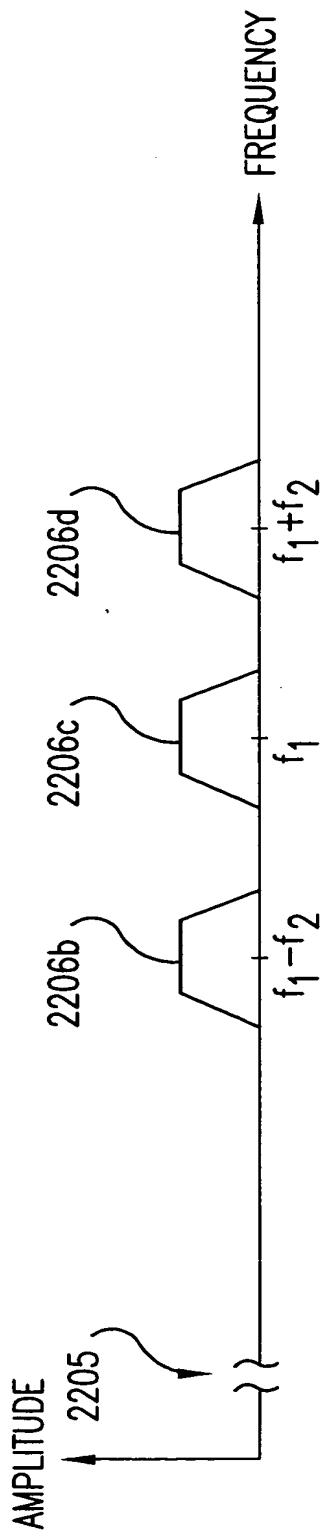


FIG. 22C

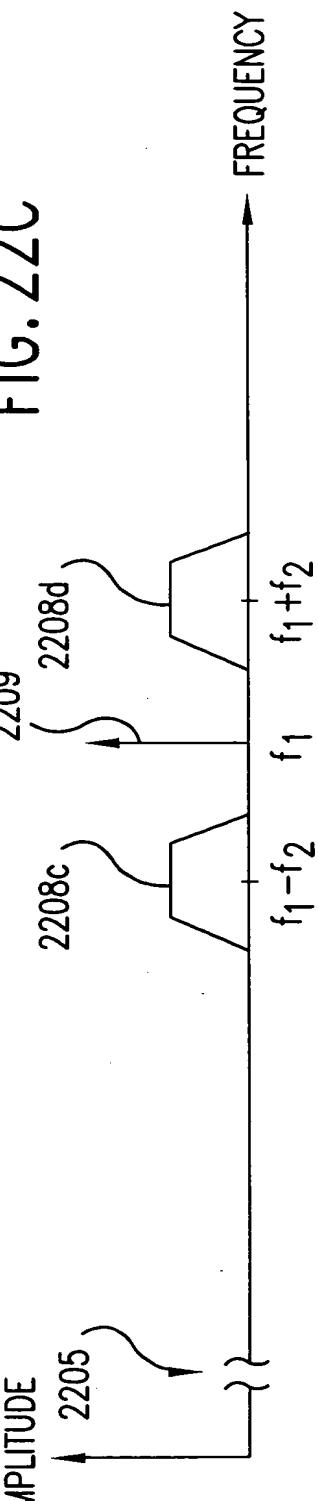


FIG. 22D

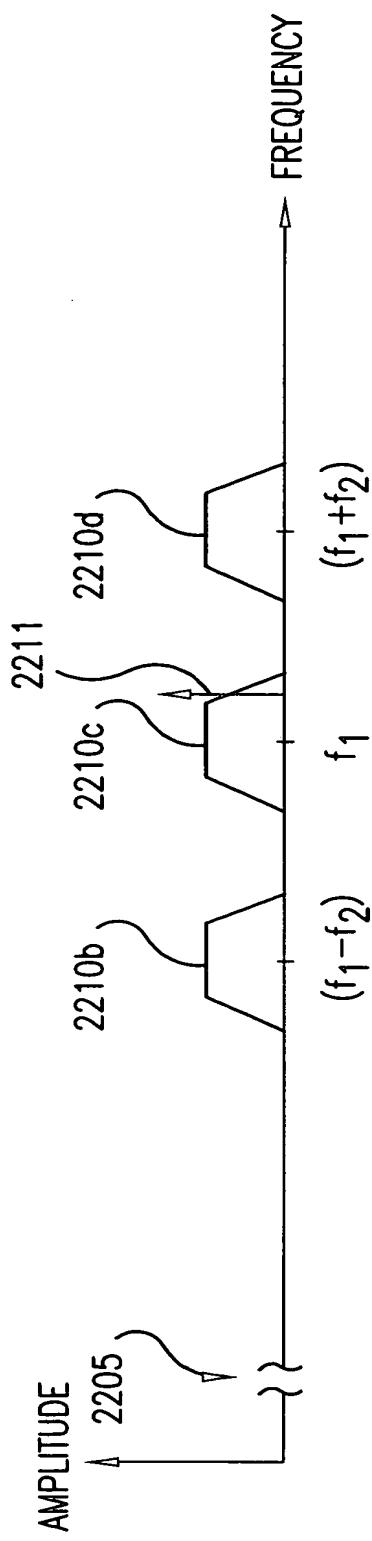


FIG. 22E

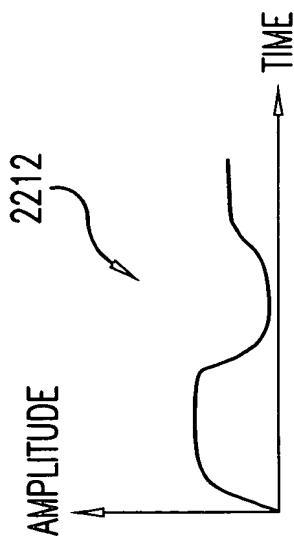


FIG. 22F

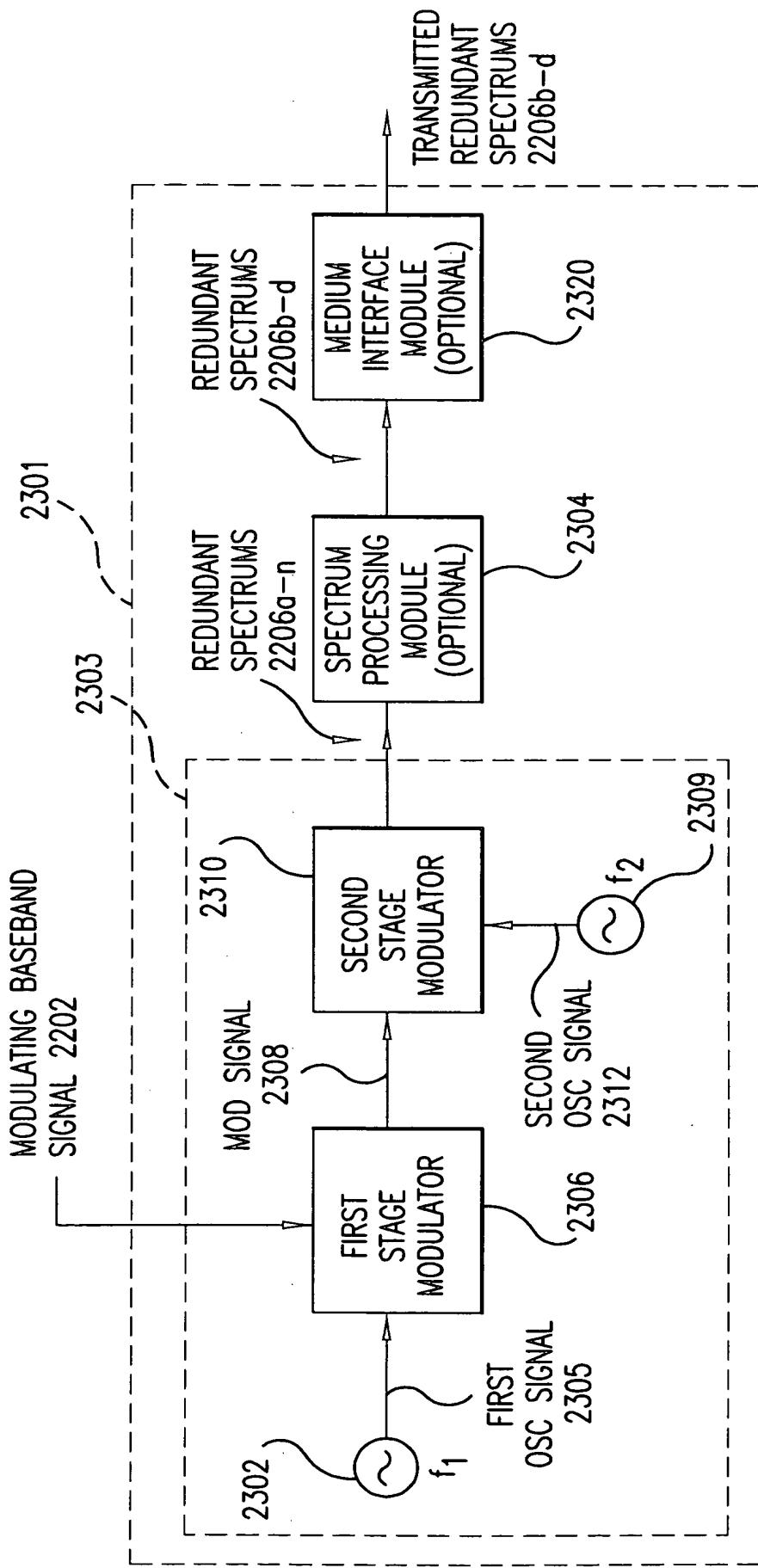


FIG. 23A

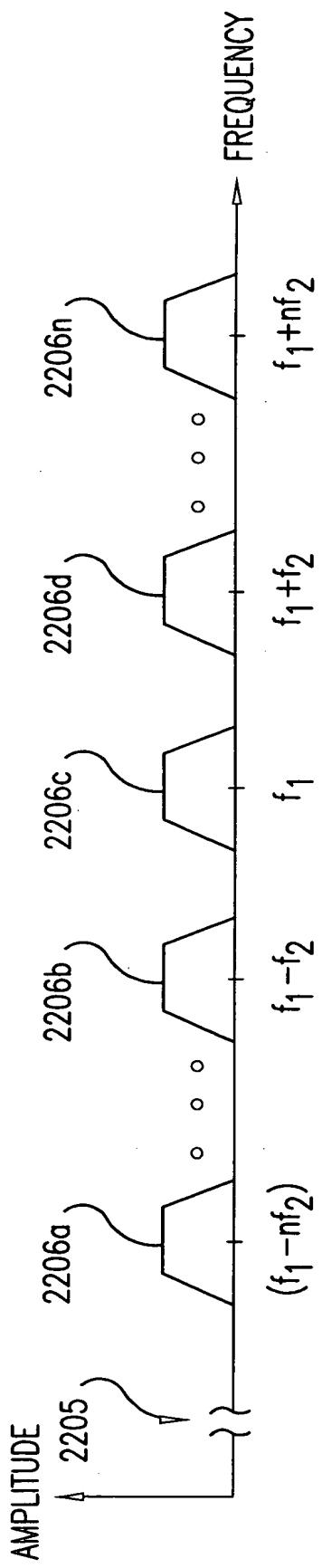


FIG. 23B

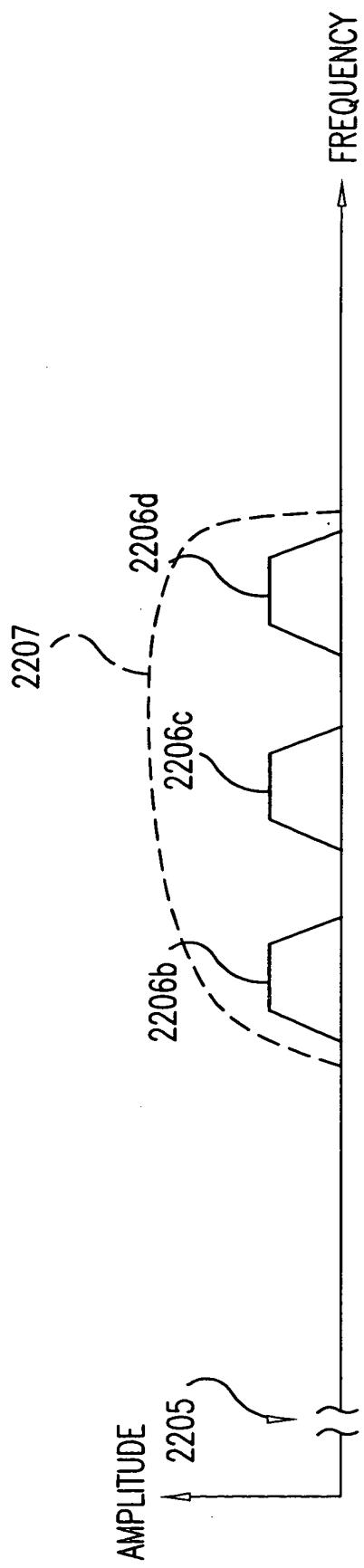


FIG. 23C

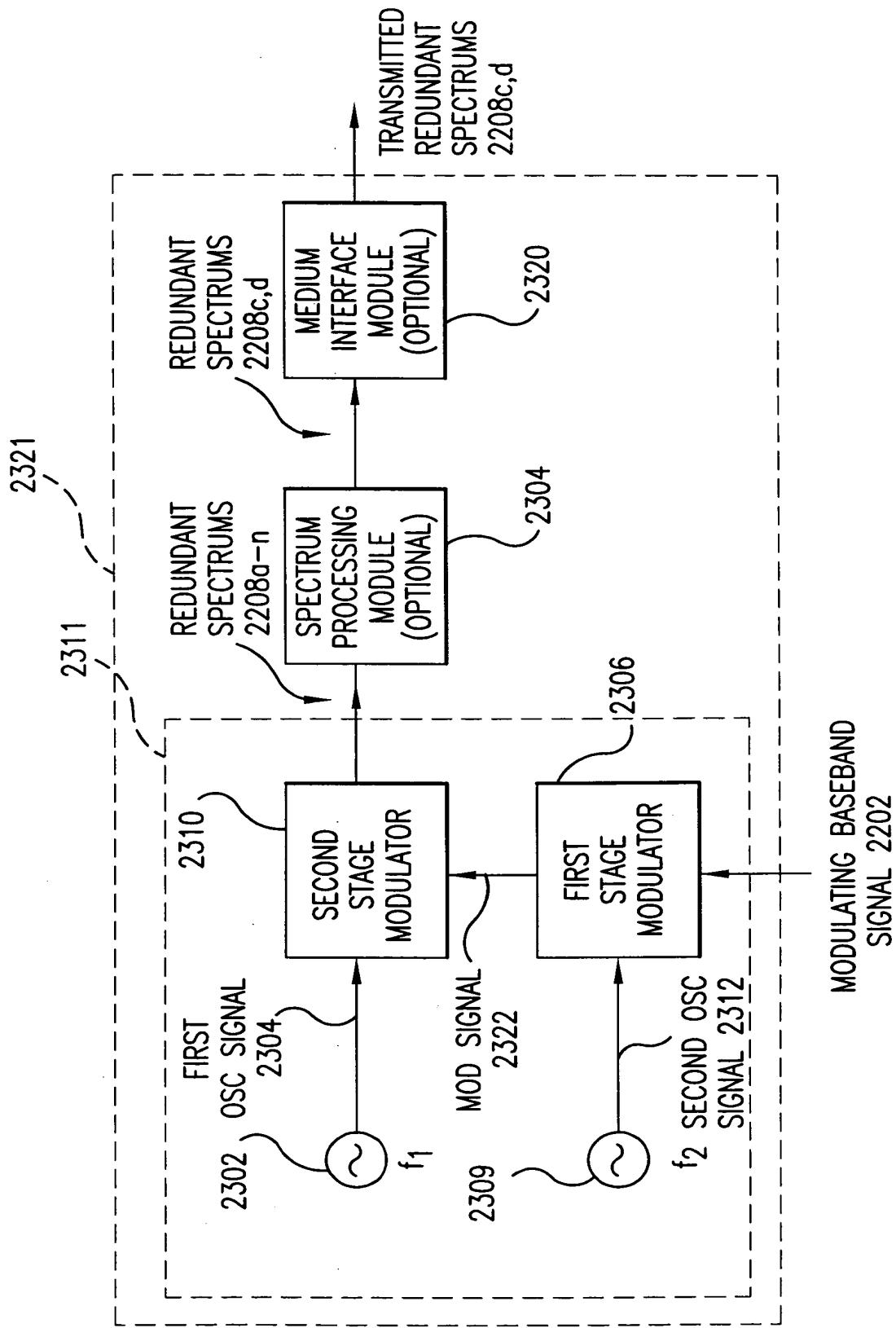


FIG. 23D

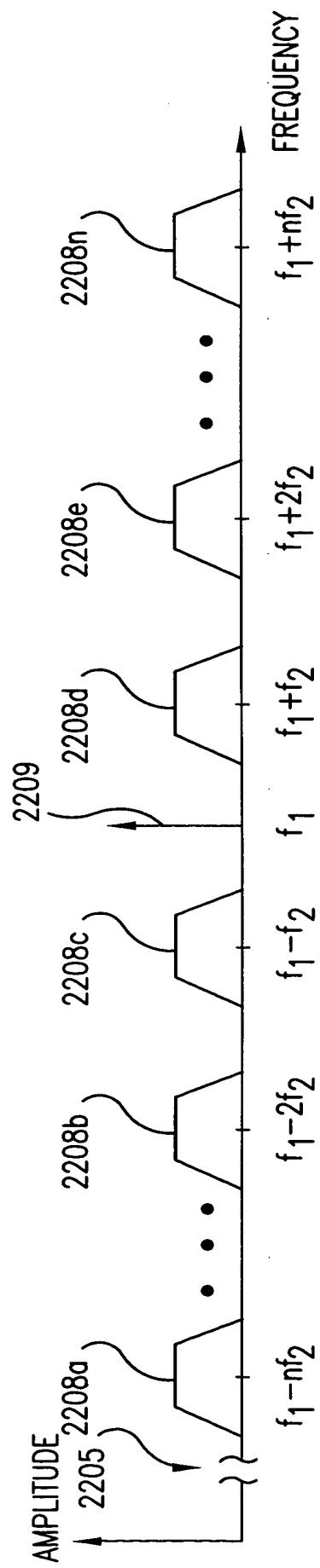


FIG. 23E

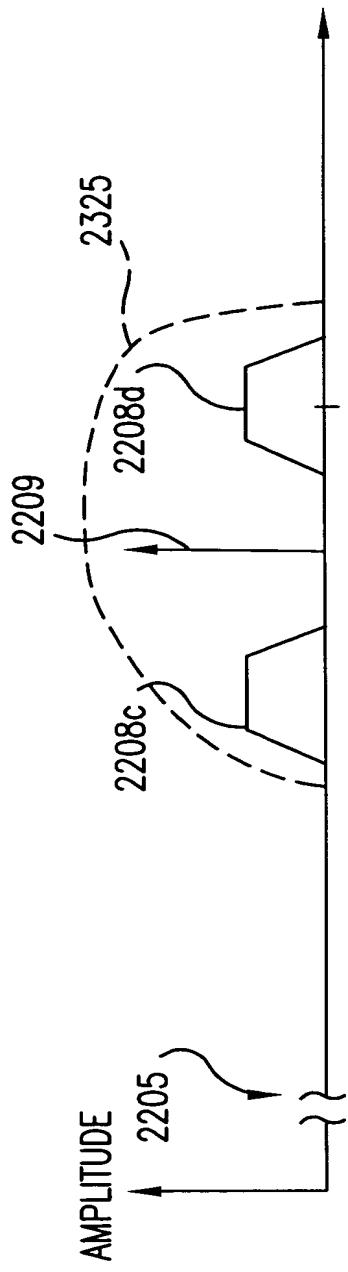


FIG. 23F

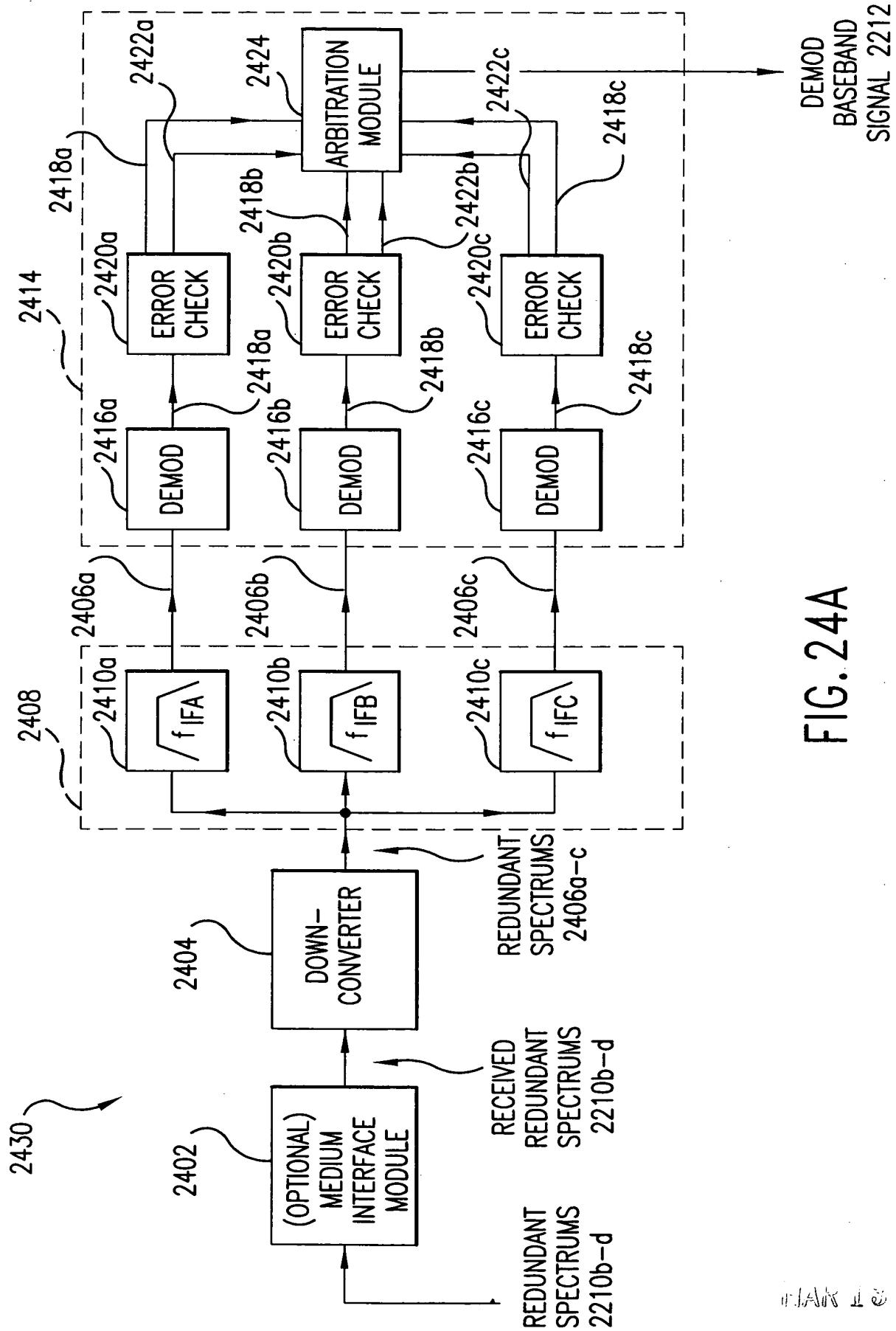


FIG. 24A

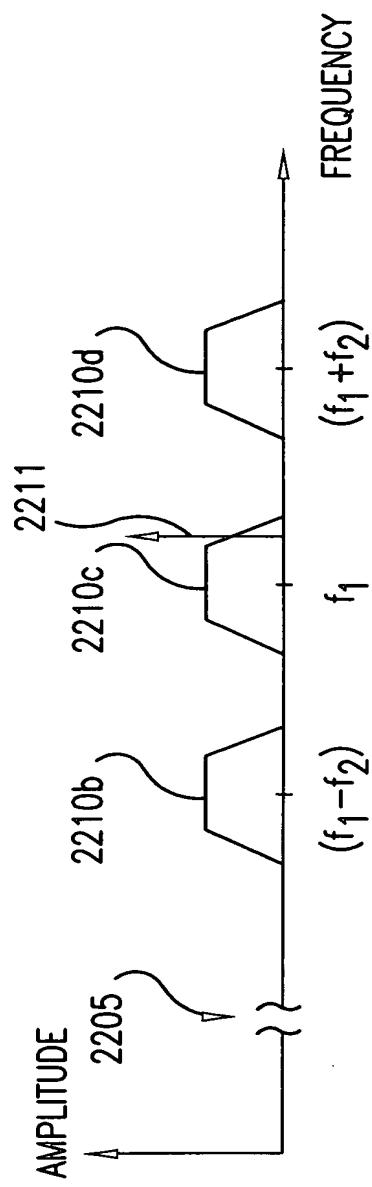


FIG. 24B

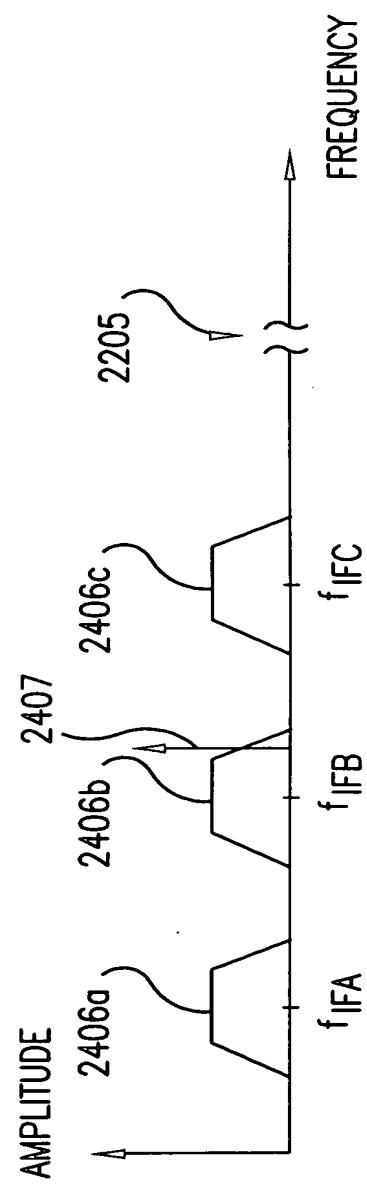


FIG. 24C

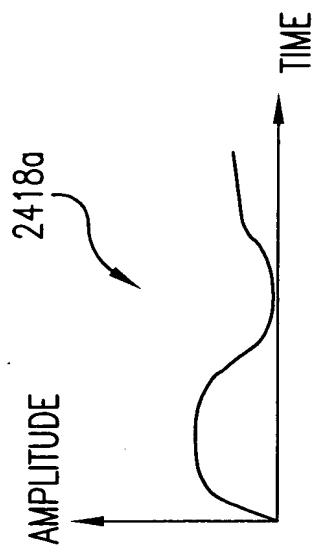


FIG. 24G

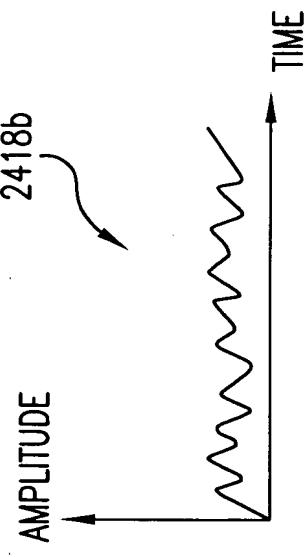


FIG. 24H

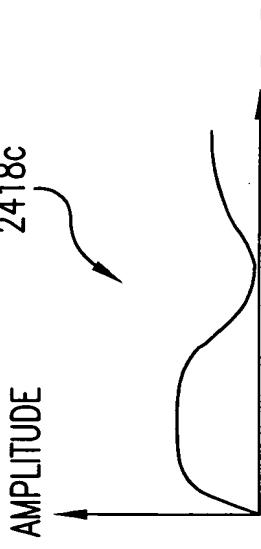


FIG. 24I

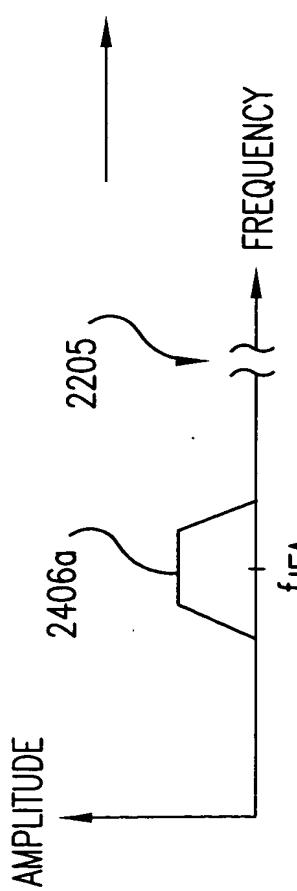


FIG. 24D

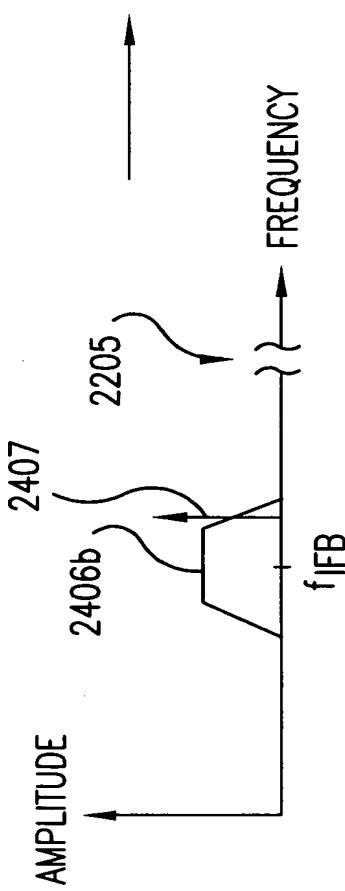


FIG. 24E

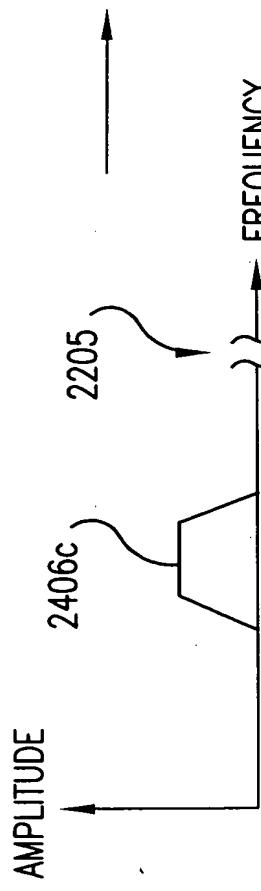


FIG. 24F

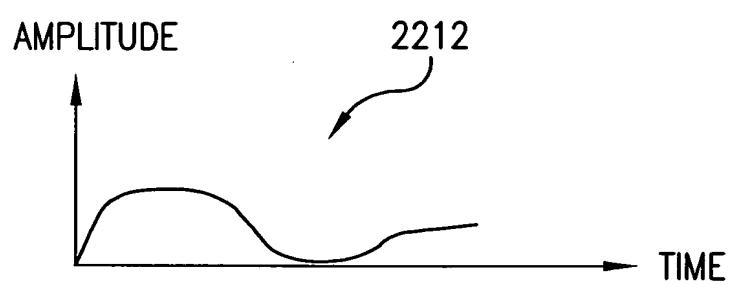


FIG. 24J

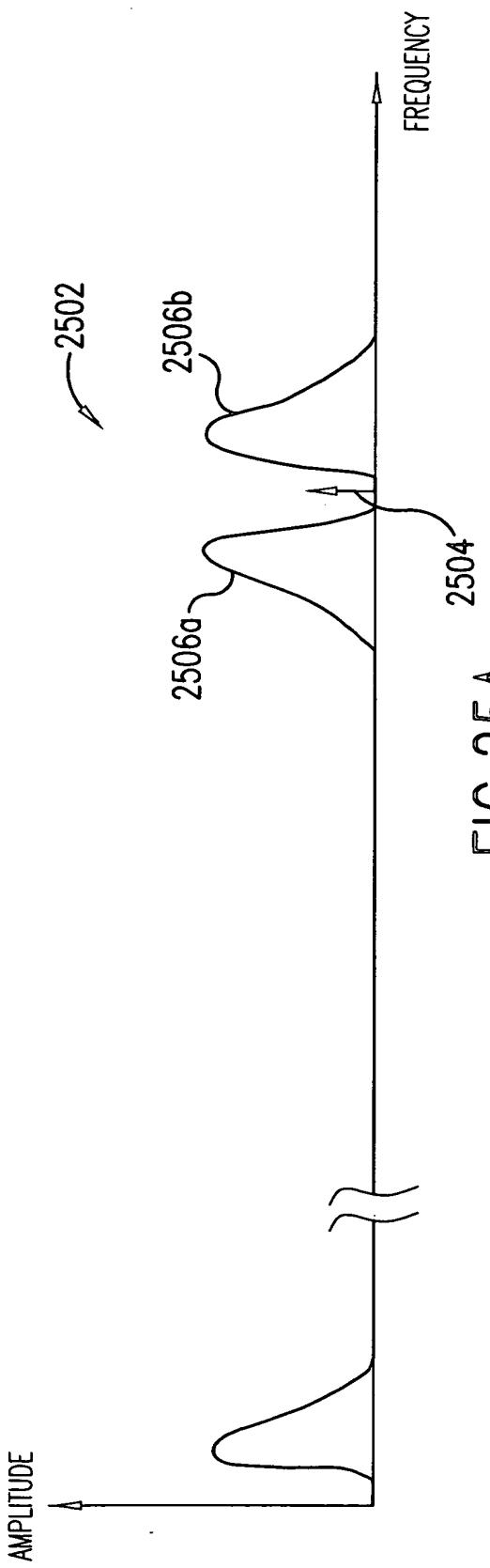


FIG. 25A

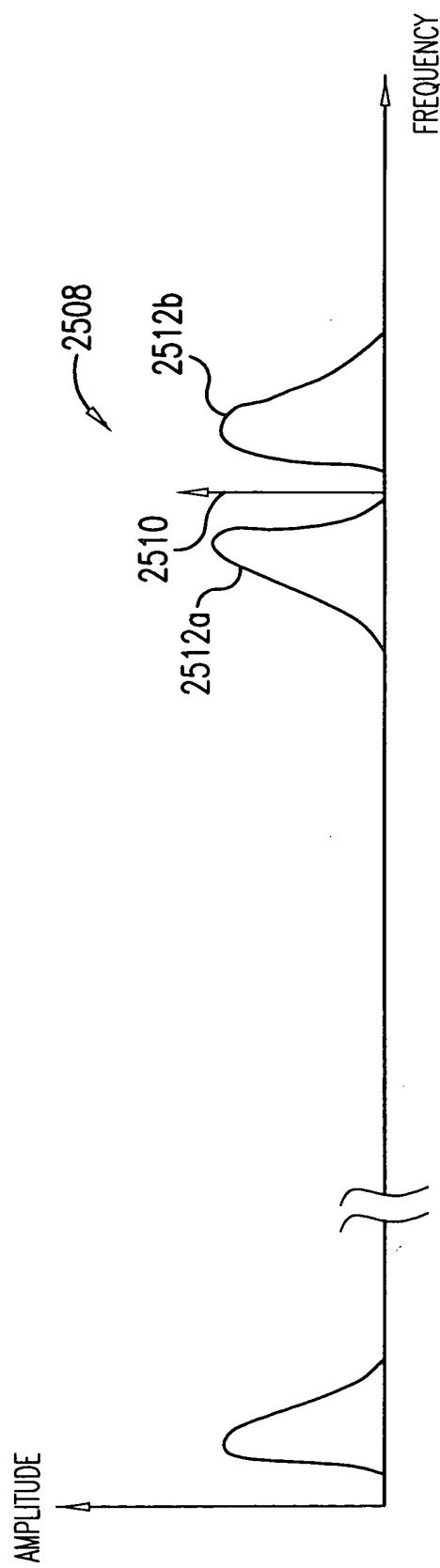
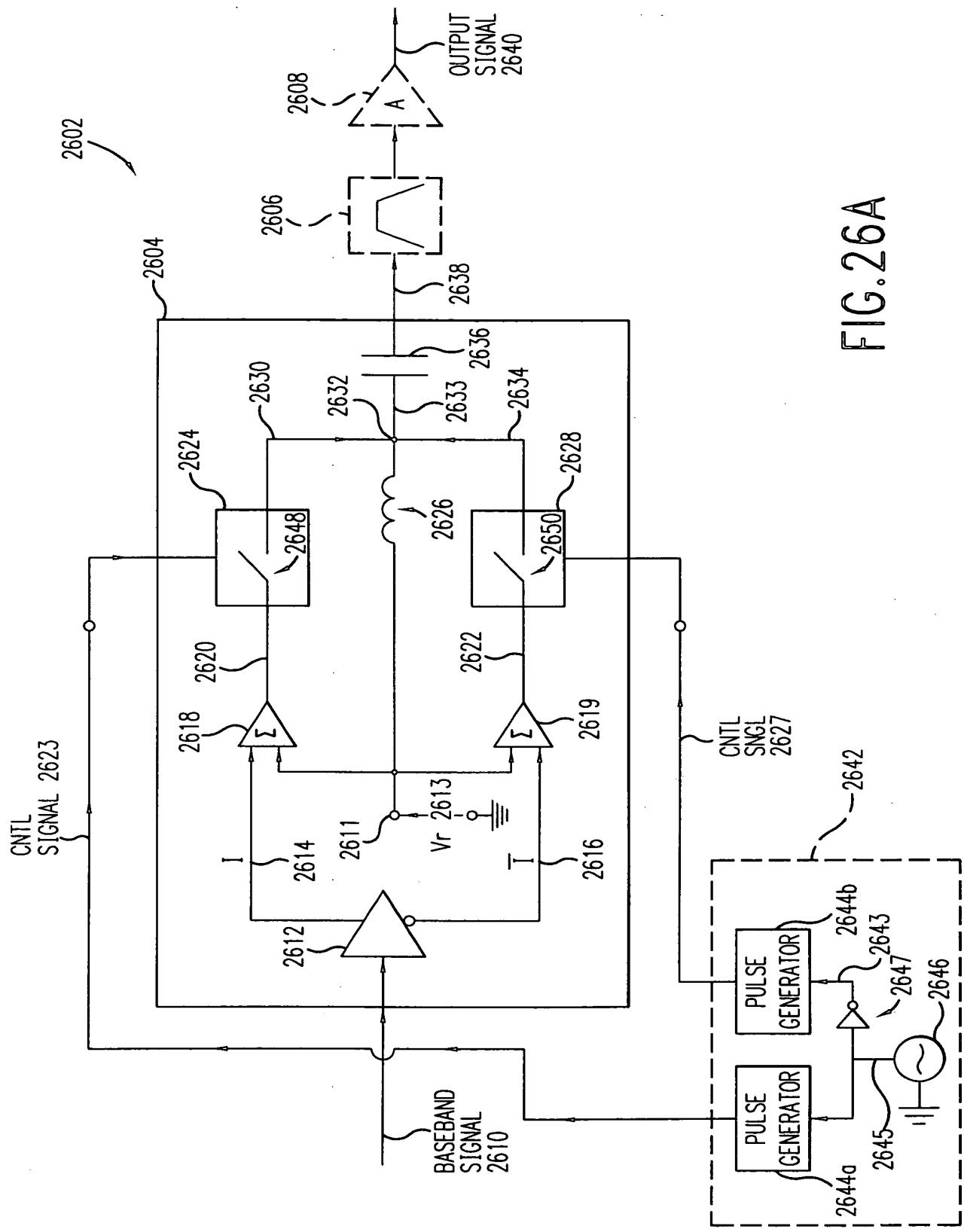


FIG. 25B

MAR 13 2006



MAR 13 2000

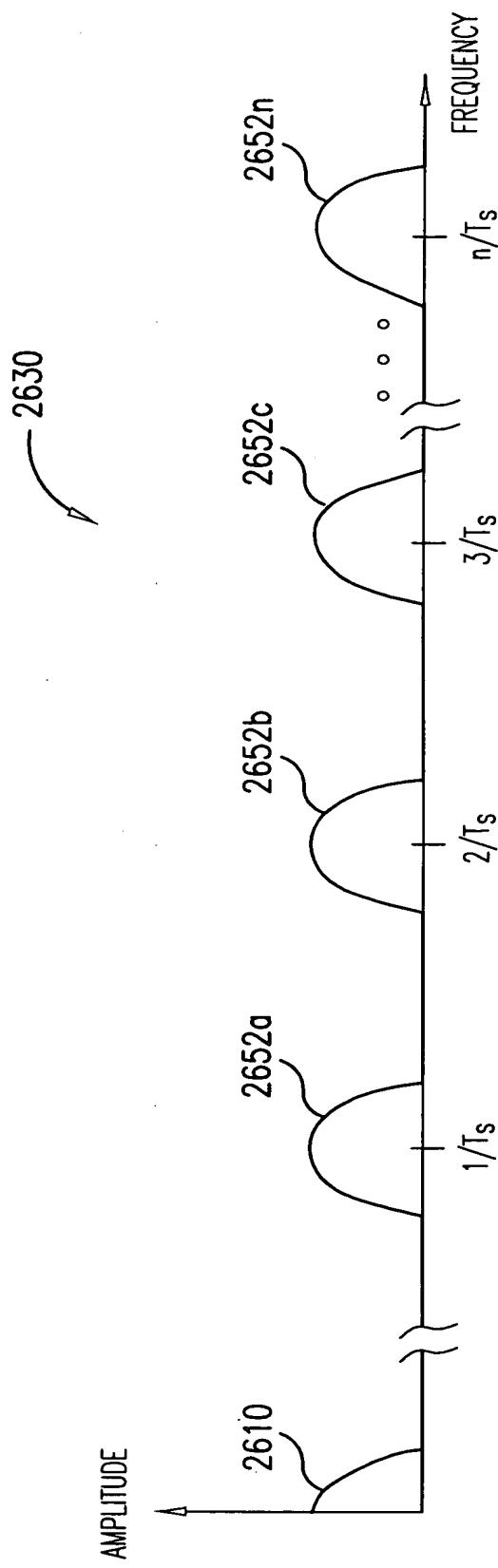


FIG. 26B

MAR 13 2006

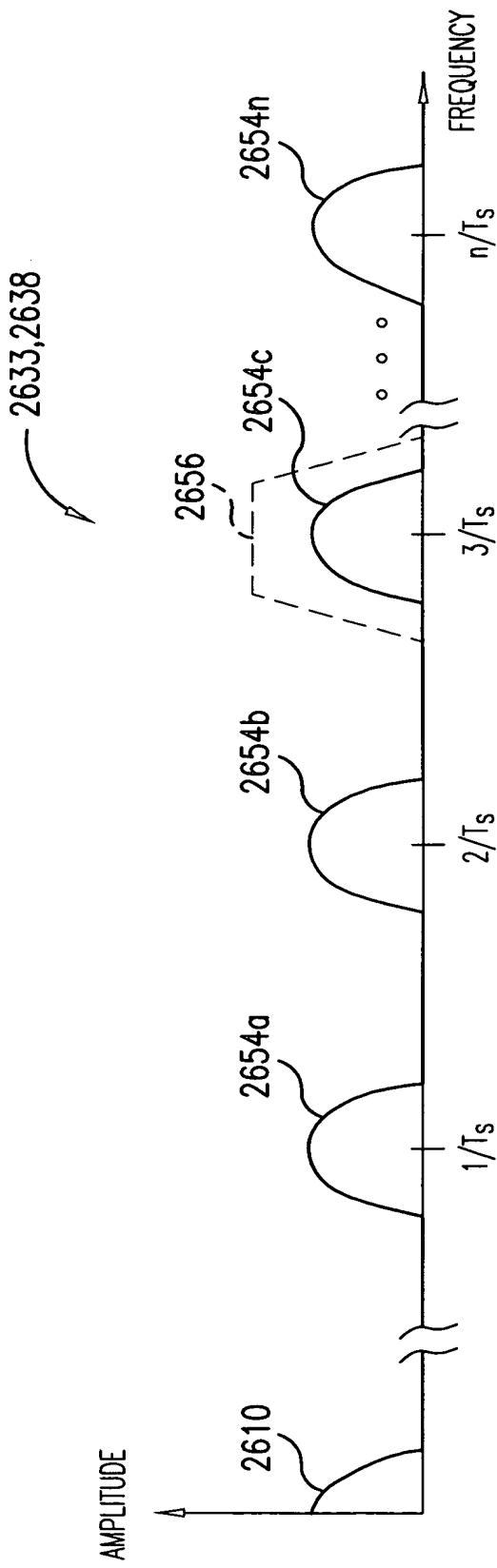


FIG. 26C

MAR 13 2000

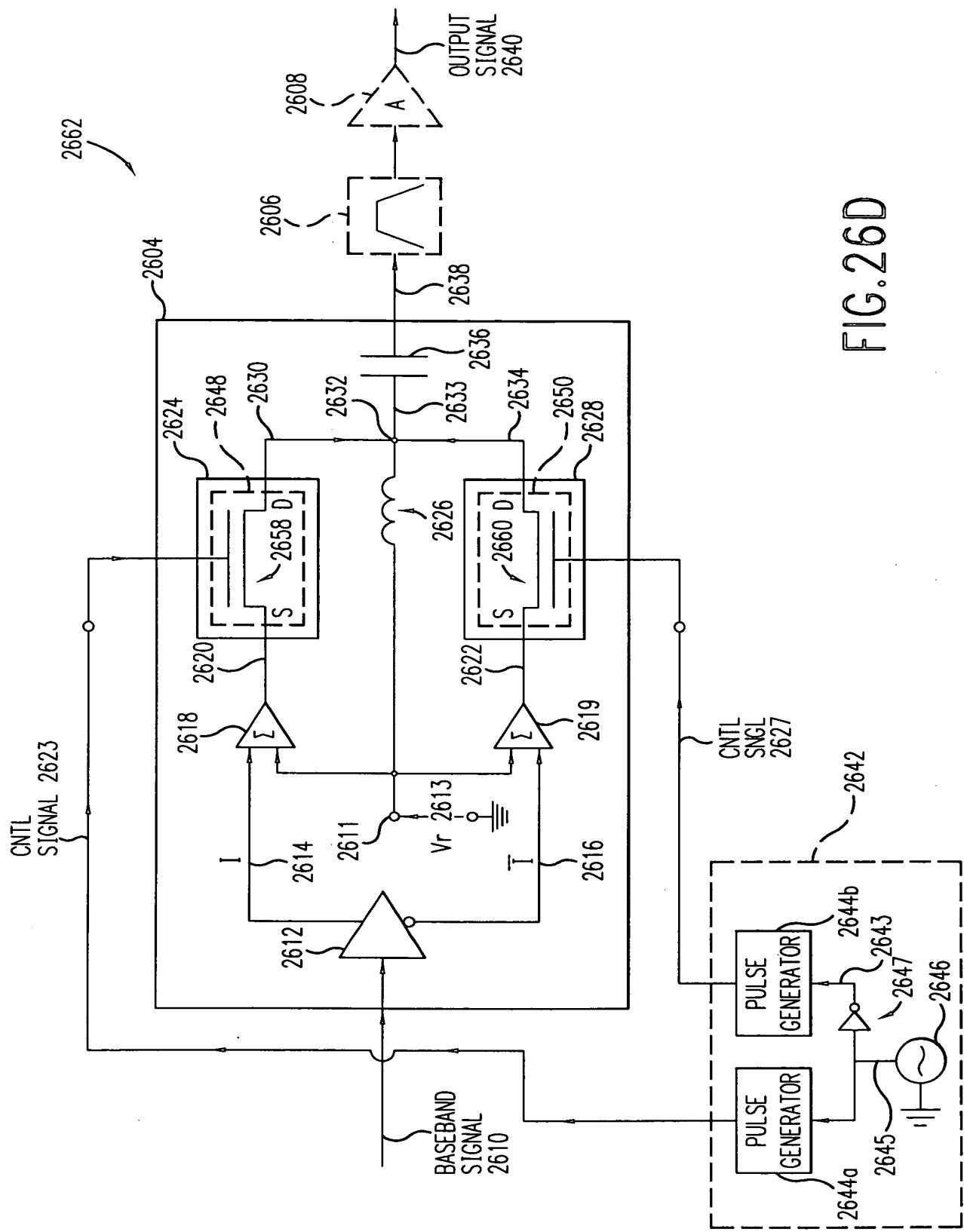


FIG. 26D

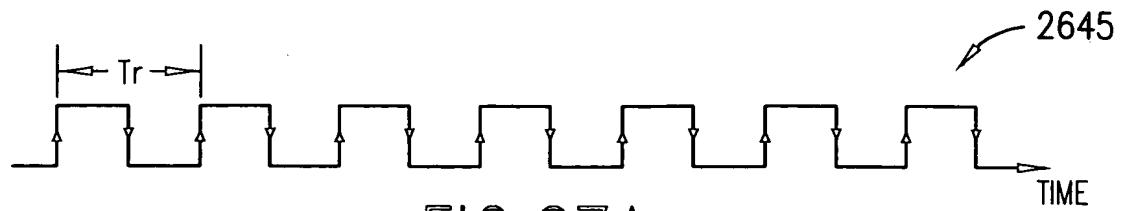


FIG. 27A

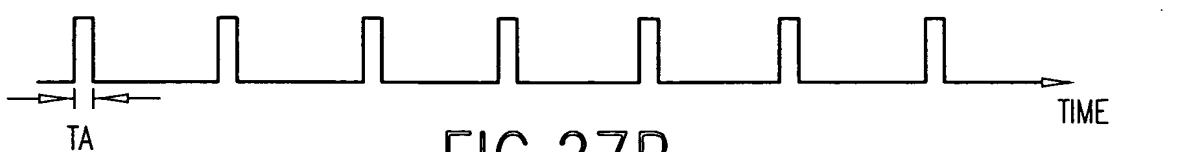


FIG. 27B



FIG. 27C

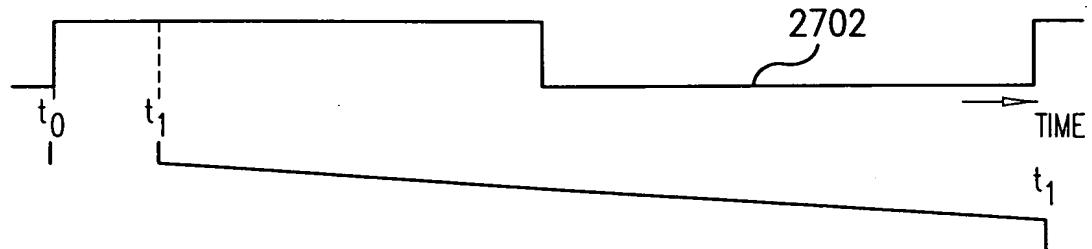


FIG. 27D

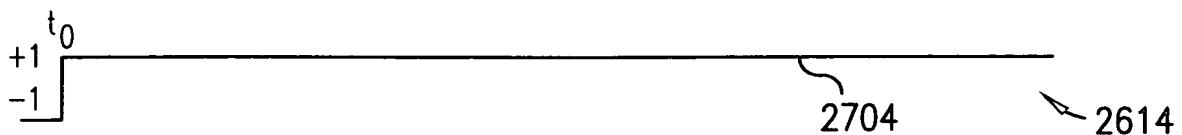
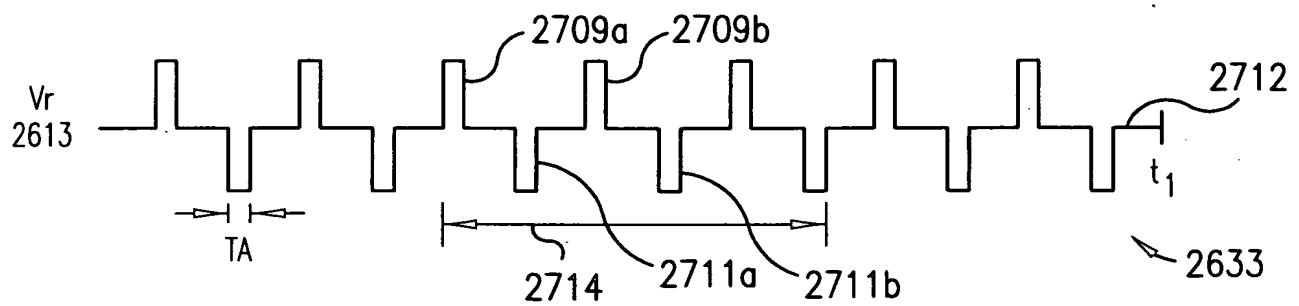
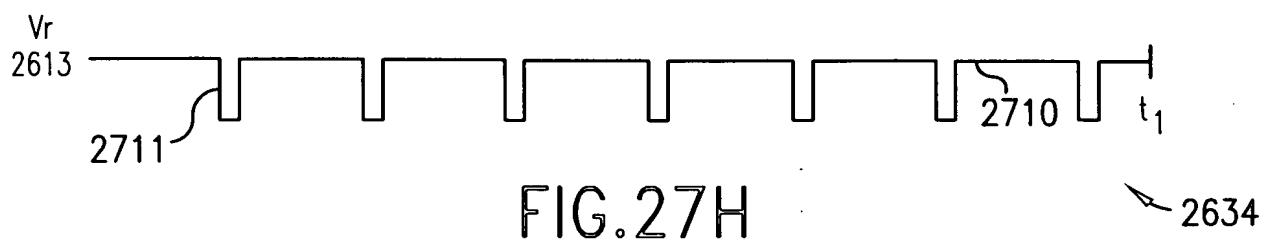
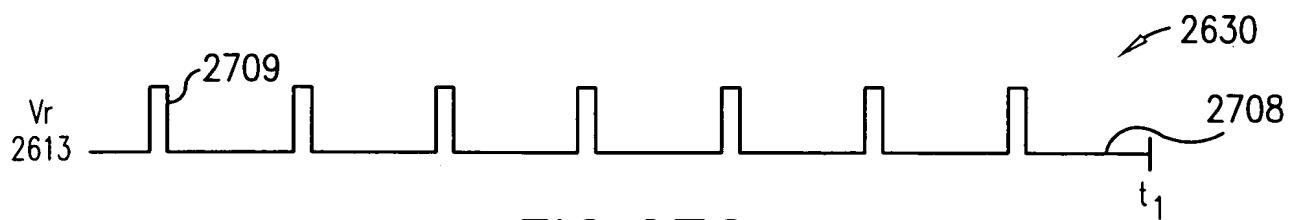


FIG. 27E



FIG. 27F



APERTURE = 500ps      SQUARE WAVE FREQUENCY = 200MHz  
FUNDAMENTAL CLOCK = 200MHz (5<sup>th</sup> SUBHARMONIC)

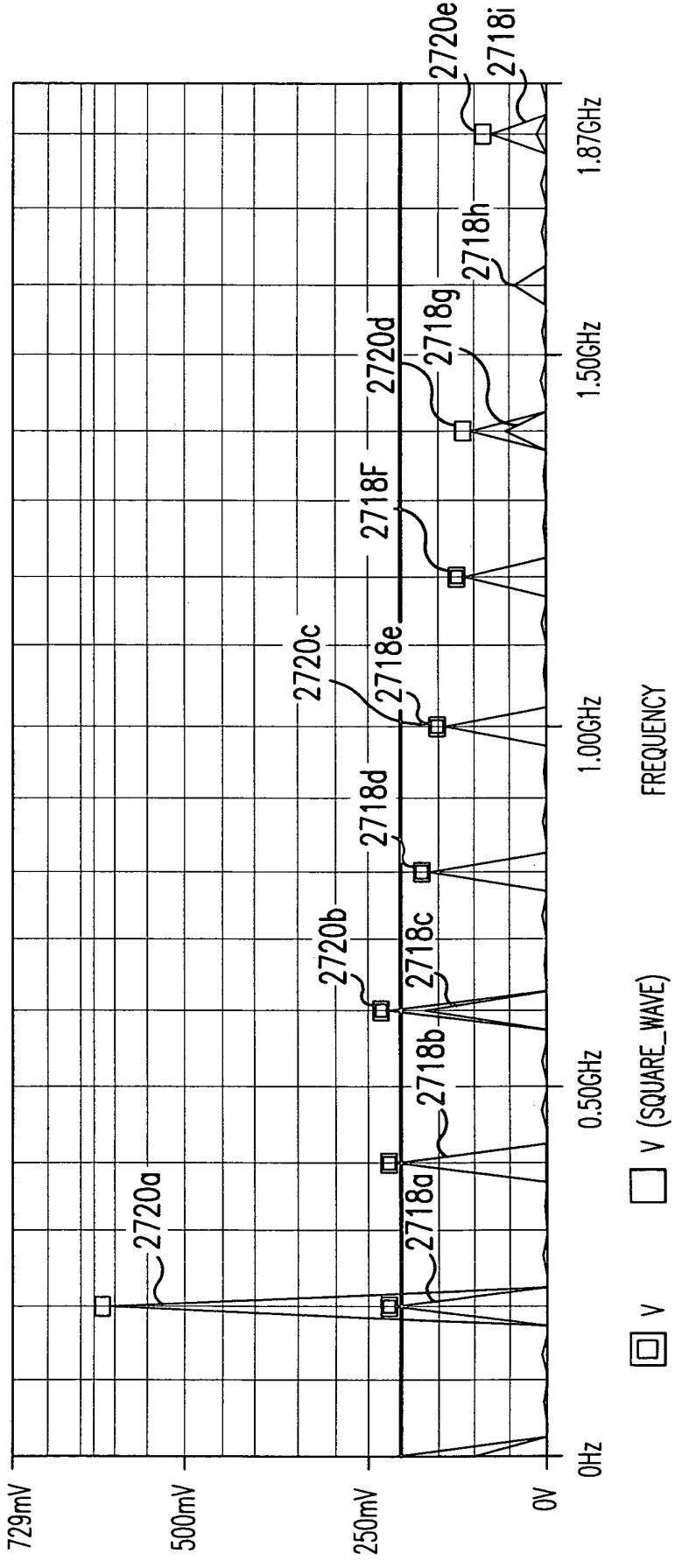
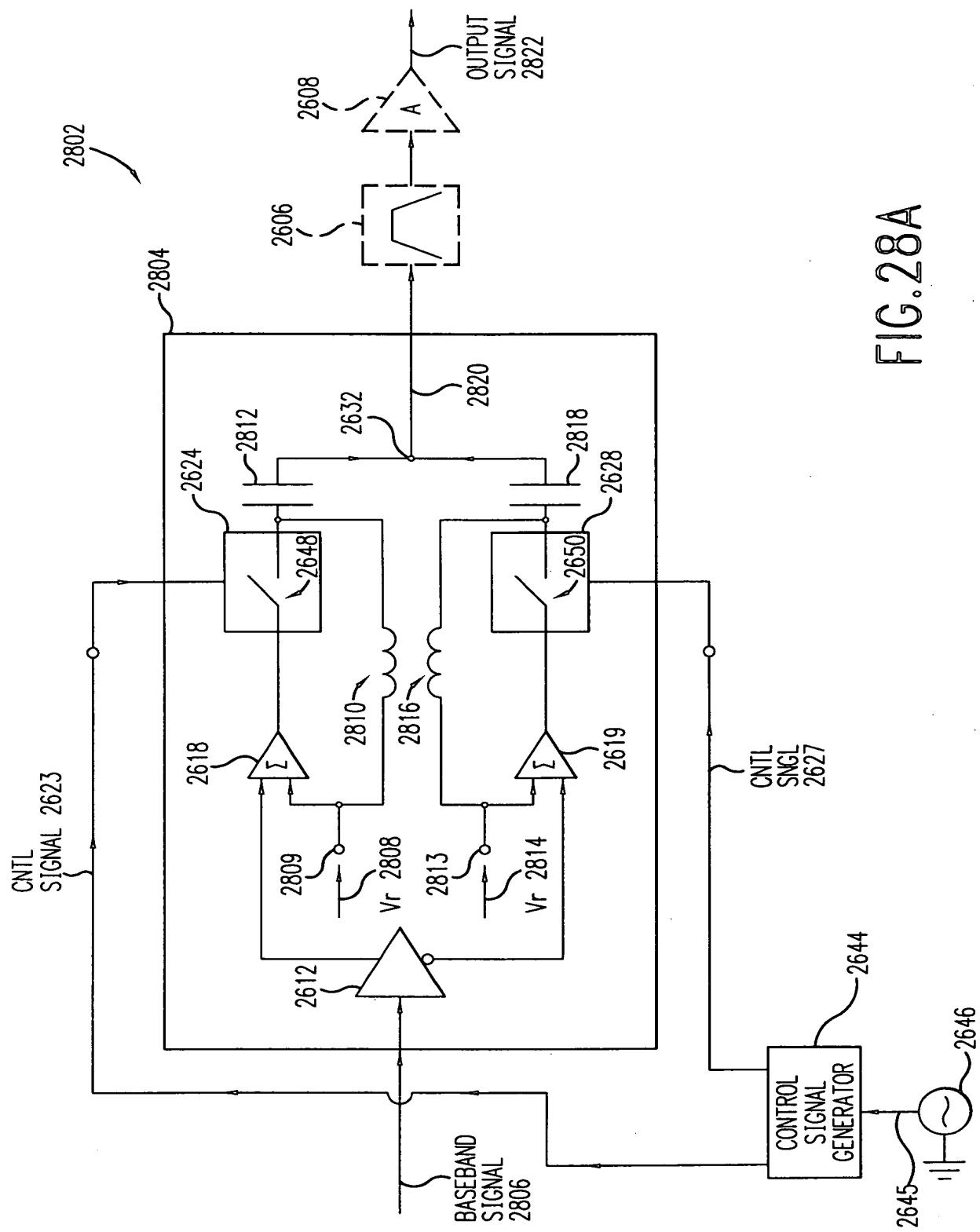


FIG.27J

MAR 13 2006



MAR 13 2006

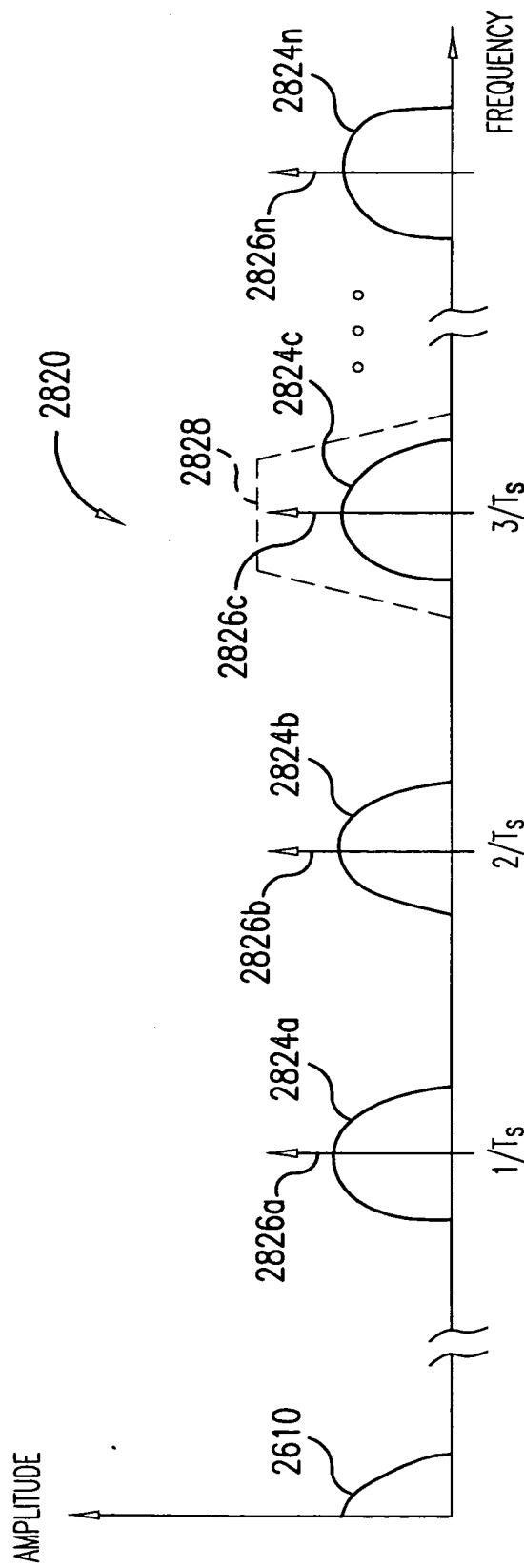
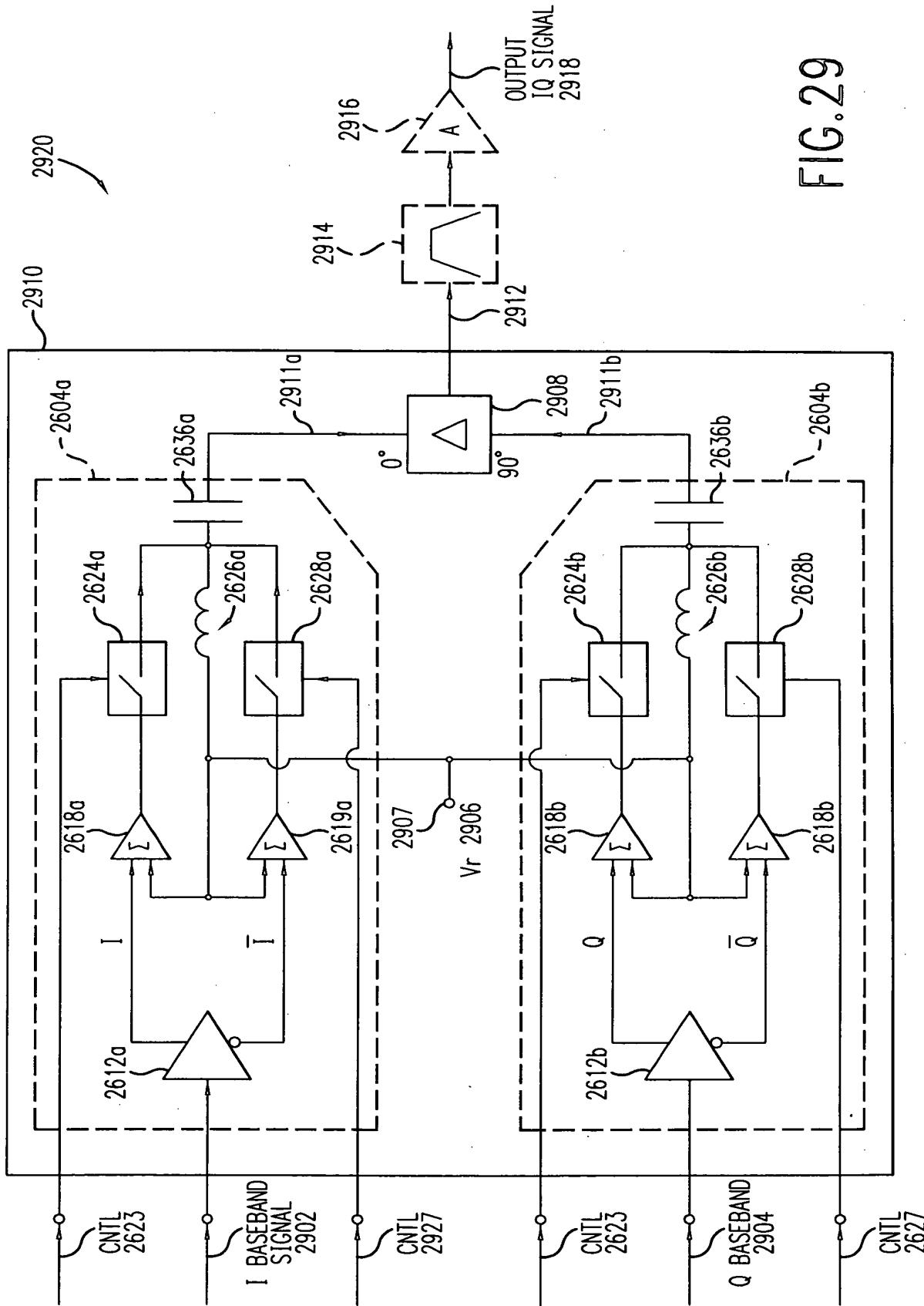


FIG. 28B



MAR 13 2008

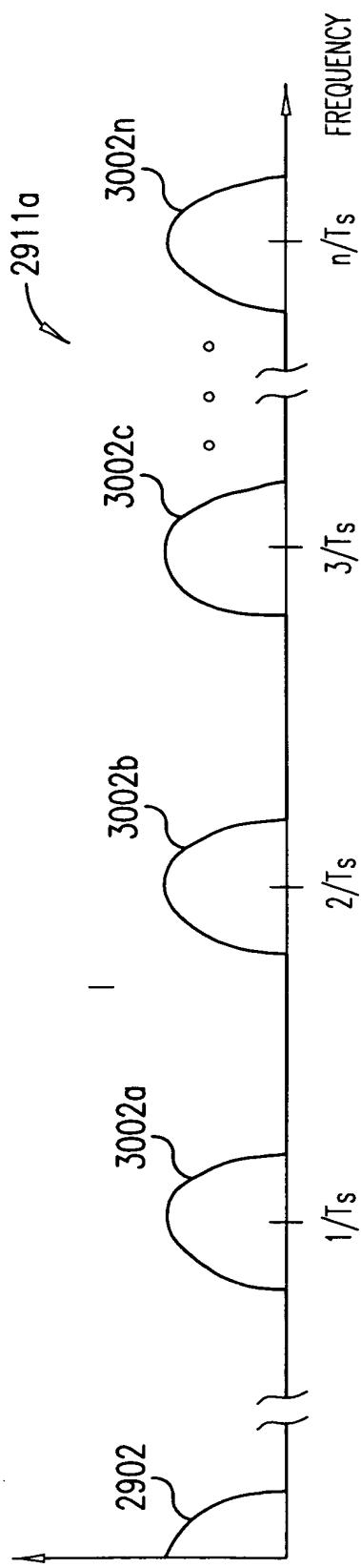


FIG. 30A

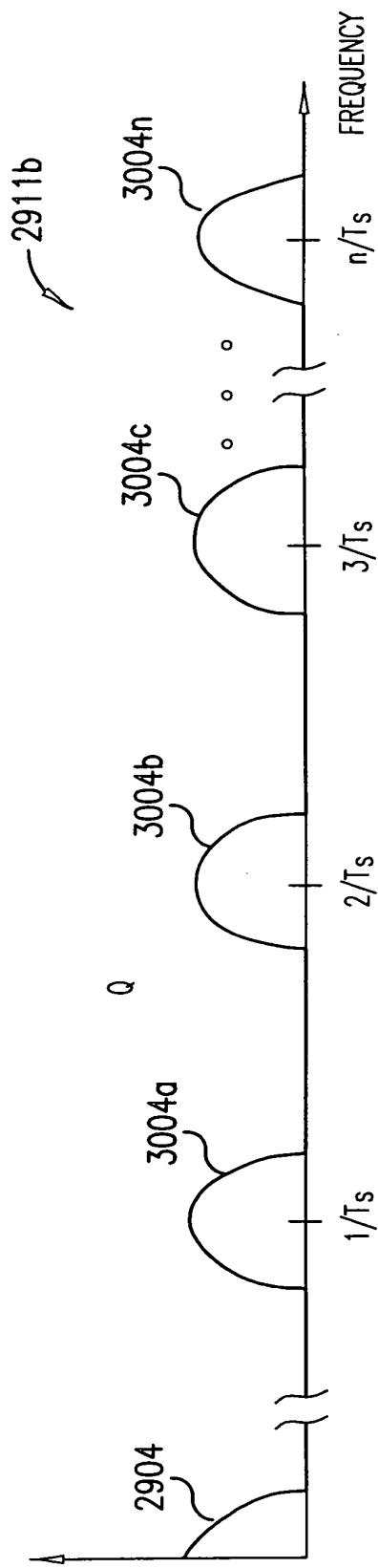


FIG. 30B

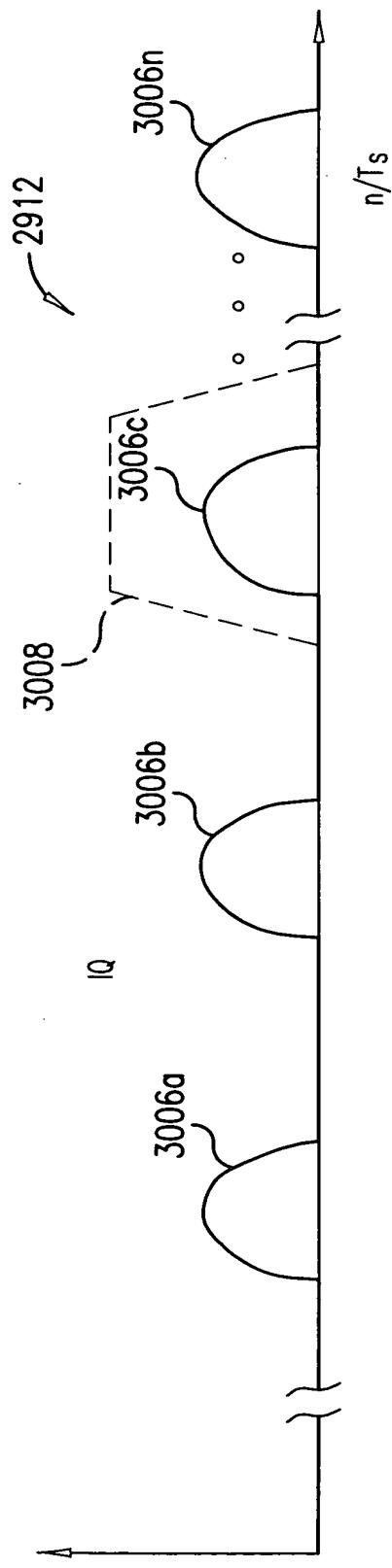
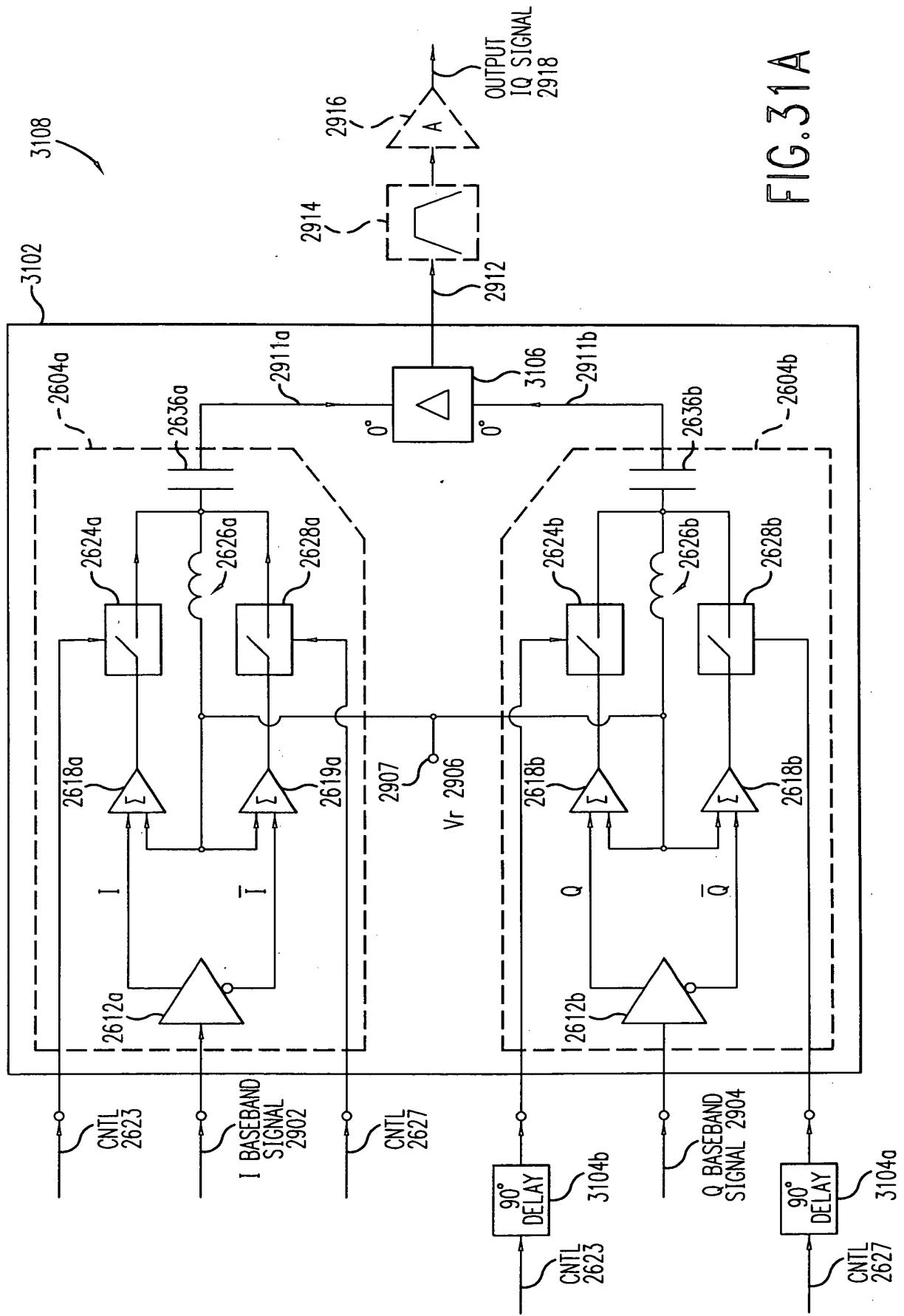


FIG. 30C

MAR 13 2006



MAR 13 2006

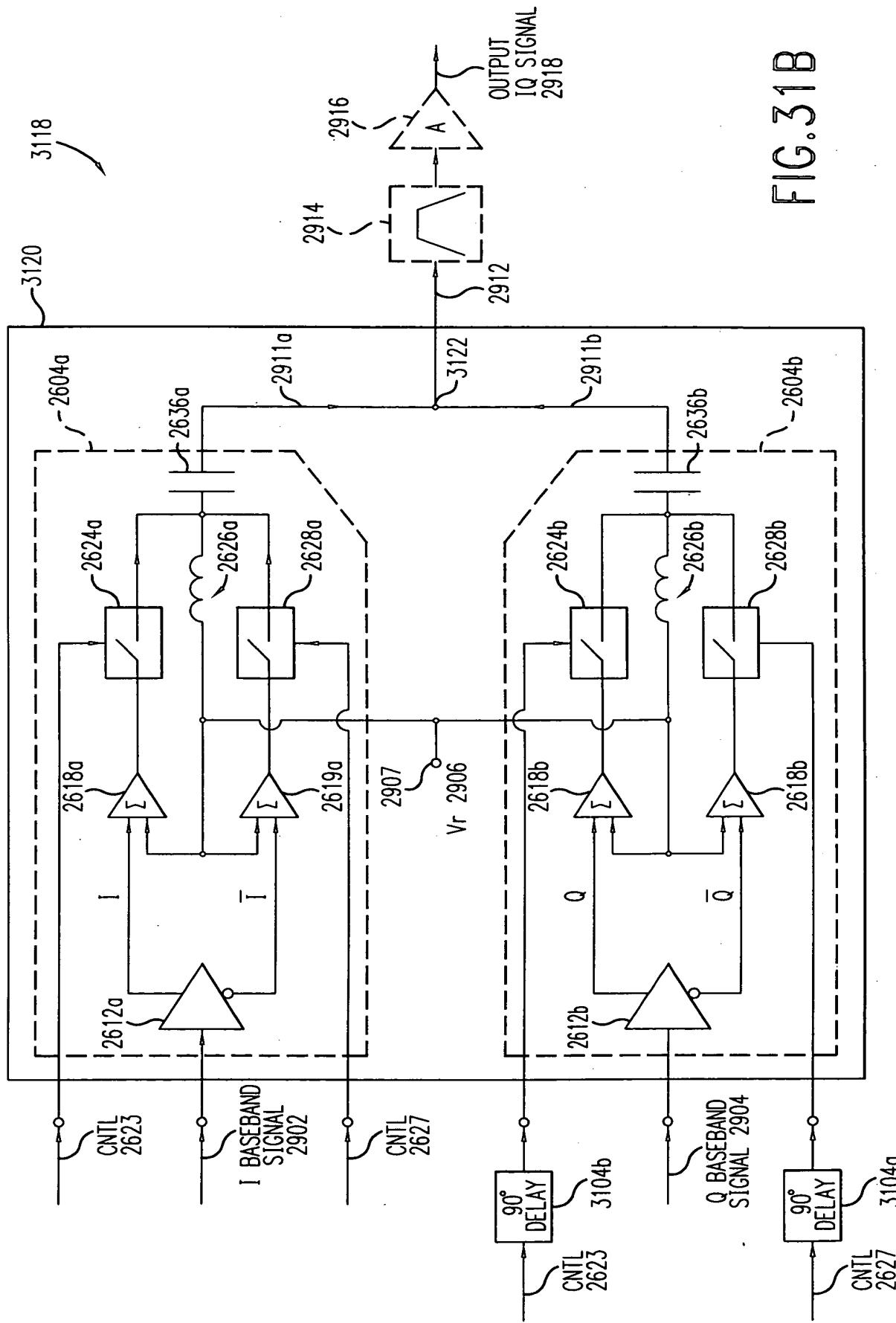
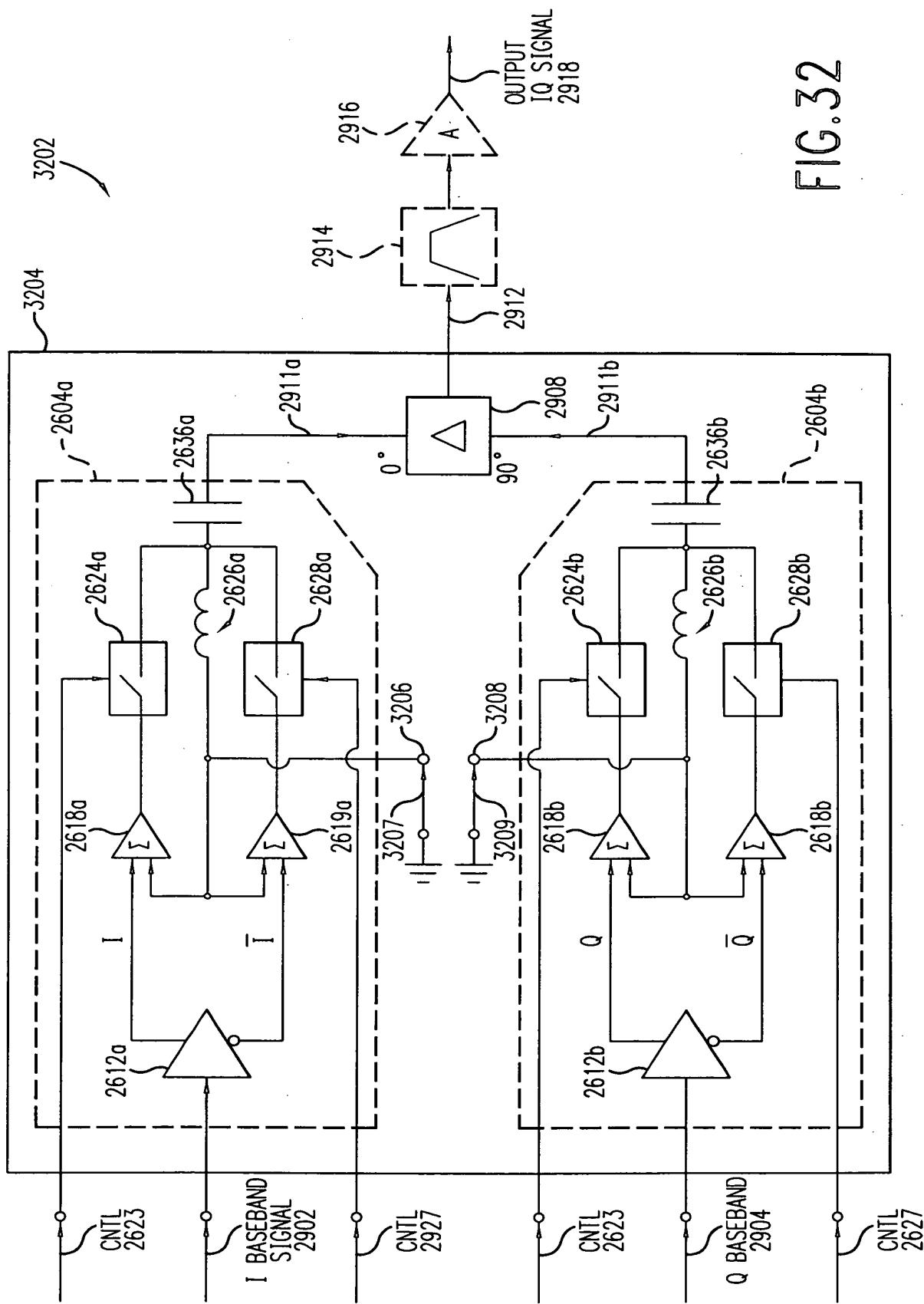
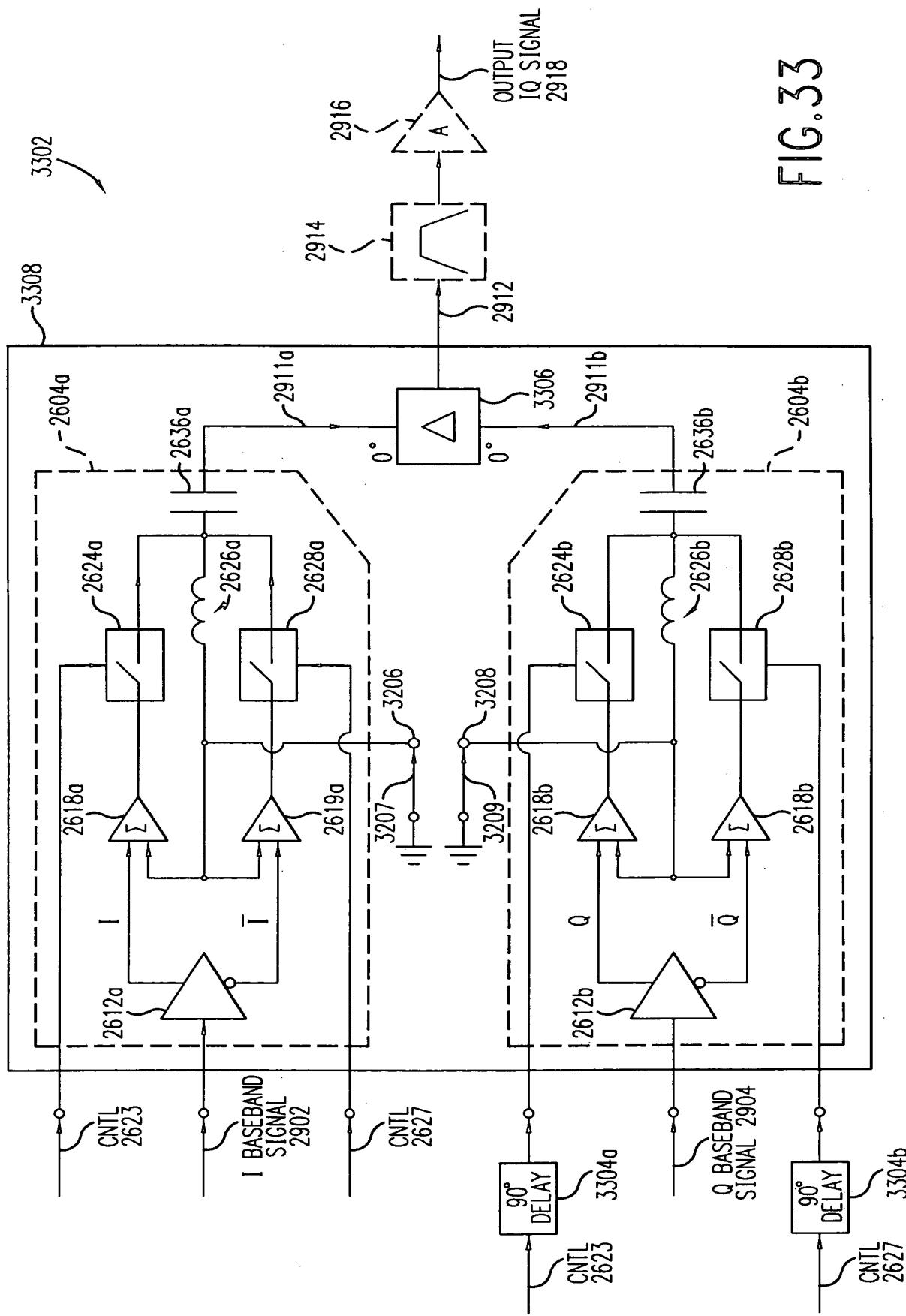


FIG. 31B

MAR 13 2005



MAR 13 2006



MAR 13 2006

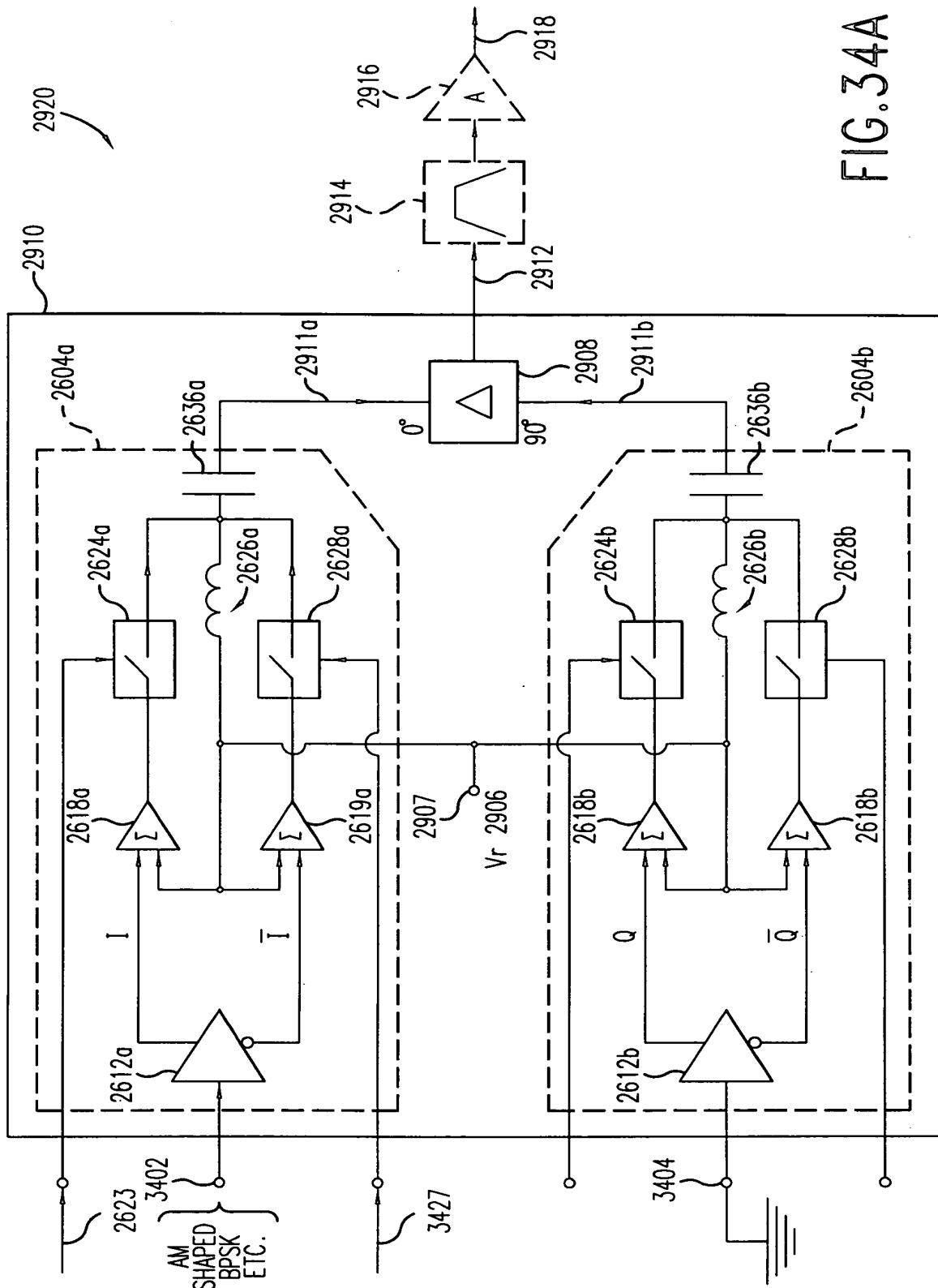


FIG. 34A

MAR 13 2006

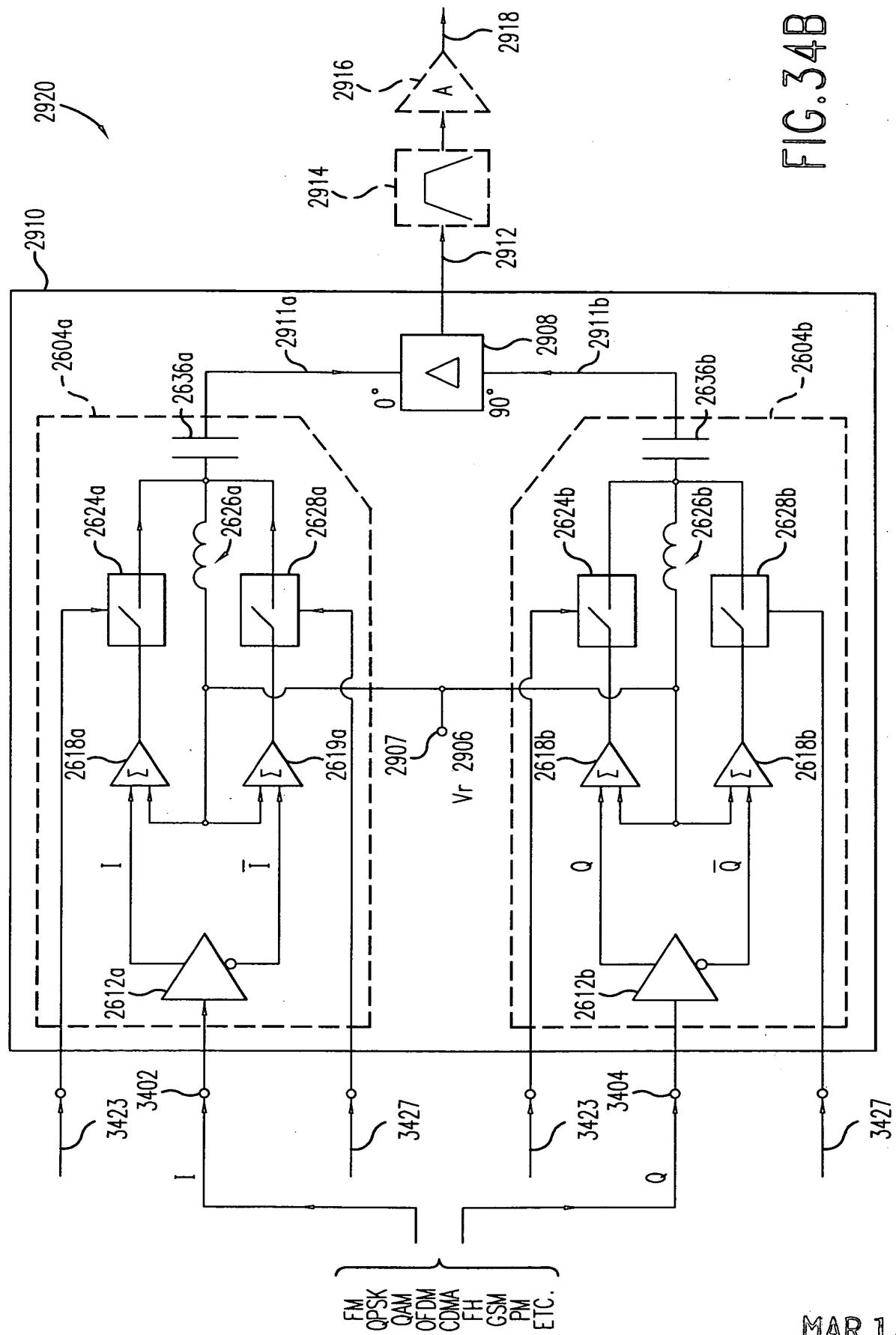


FIG. 34B

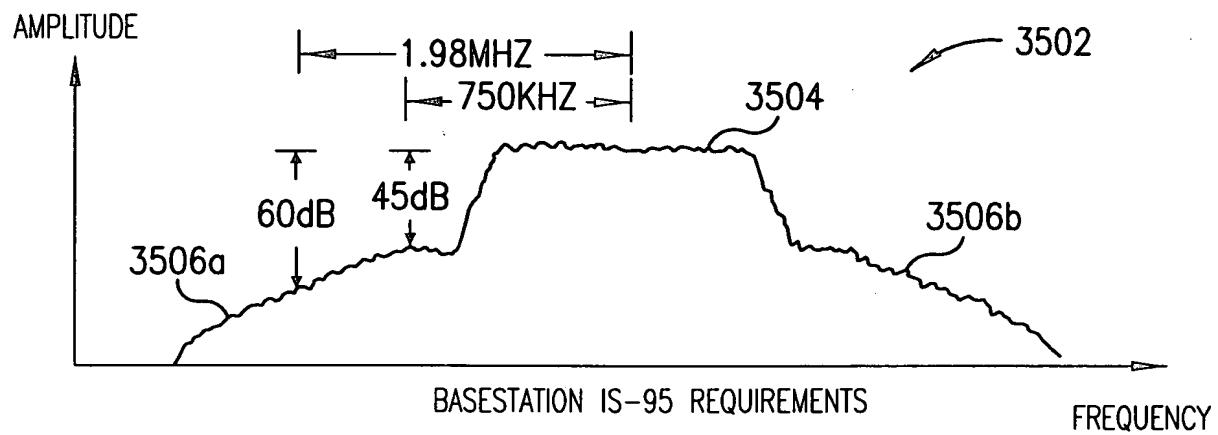


FIG.35A

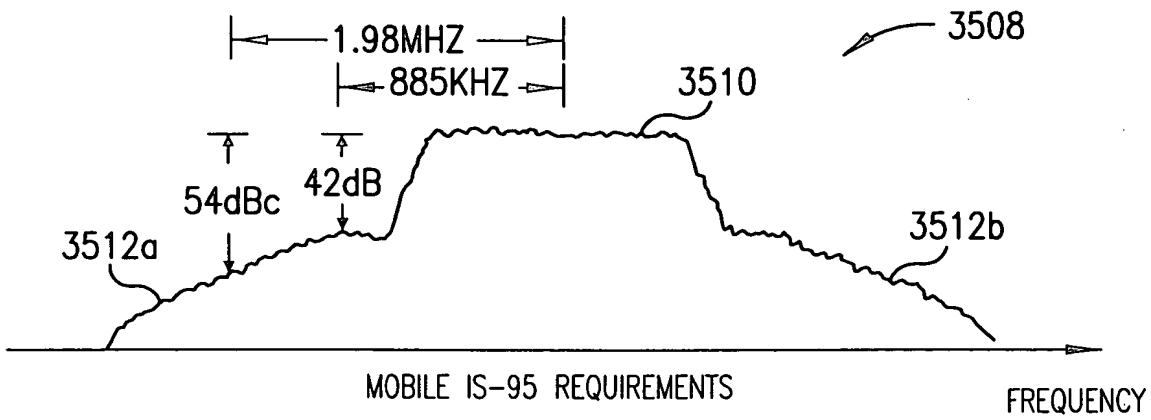
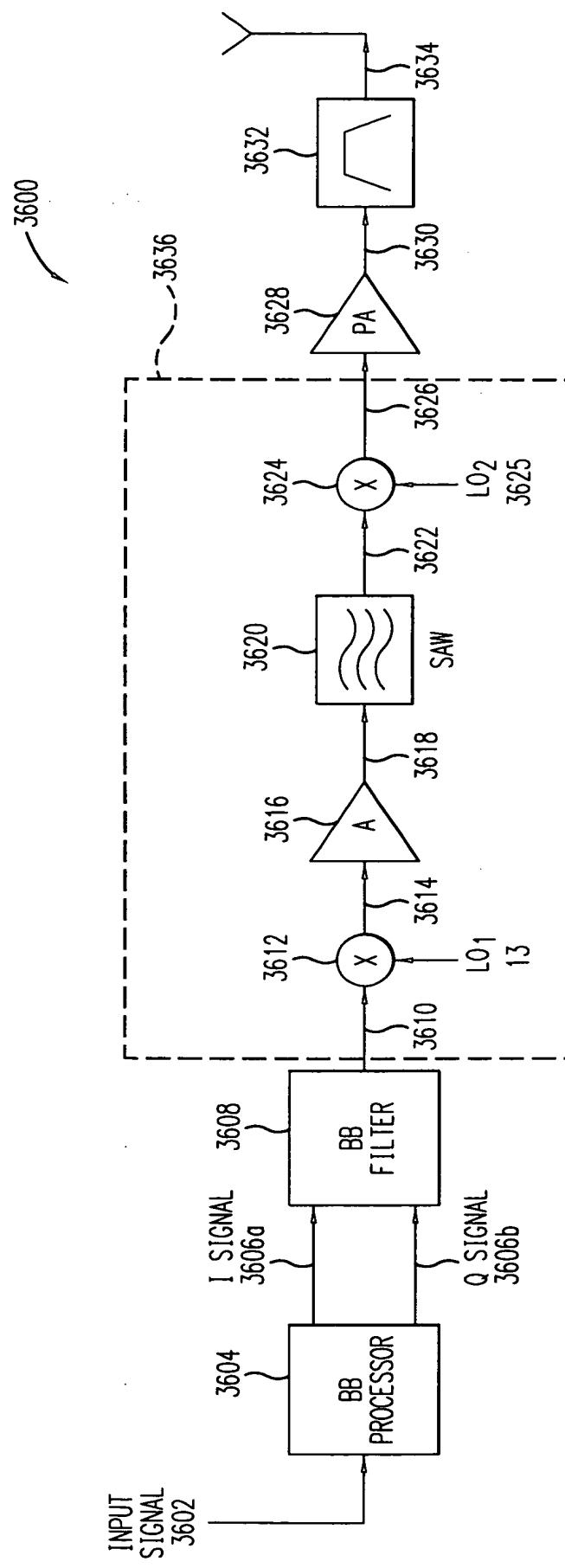


FIG.35B

MAR 13 2006



CONVENTIONAL TRANSMITTER

FIG. 36

MAR 13 2006

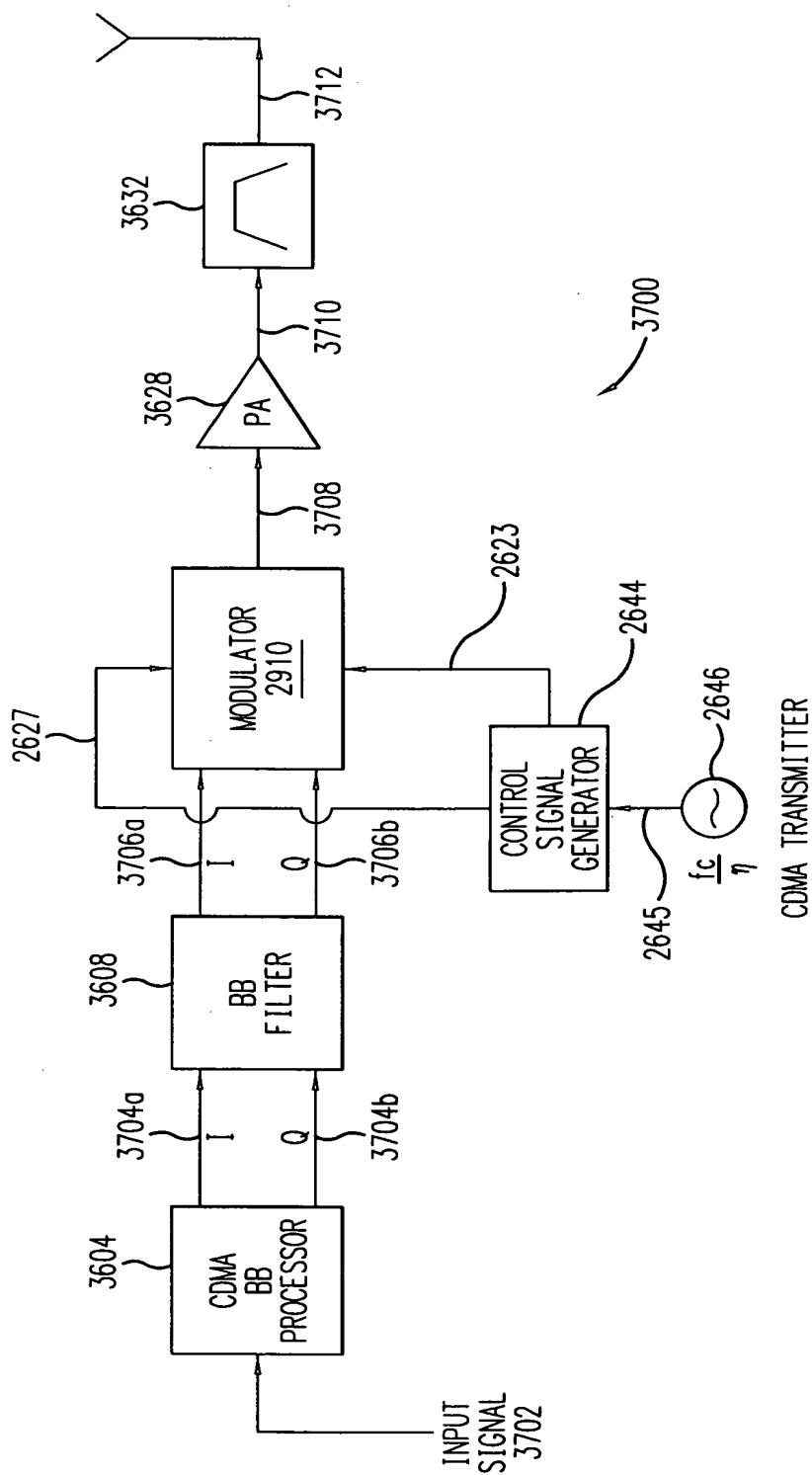


FIG. 37A

MAR 13 2006

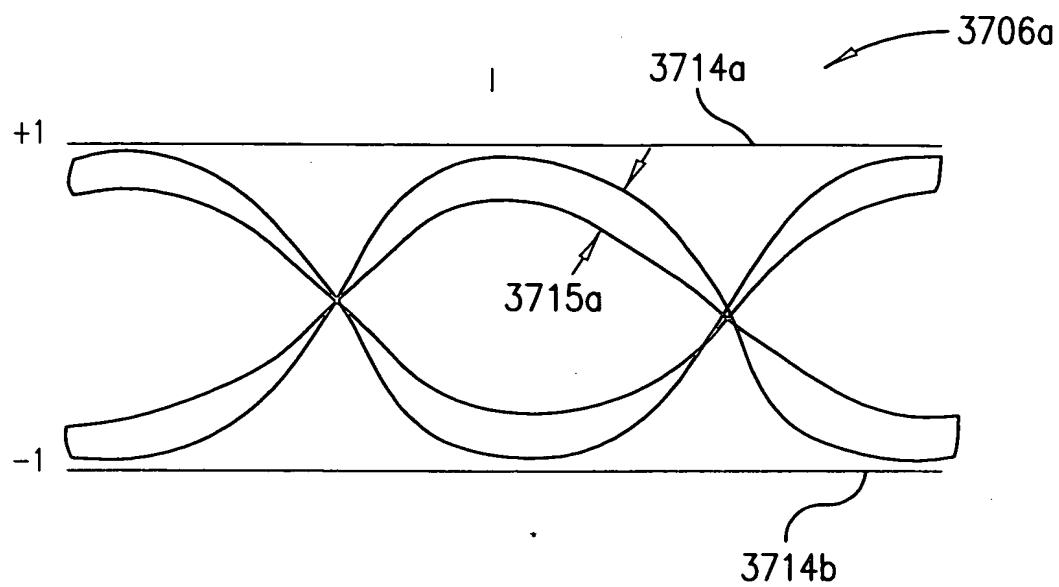


FIG. 37B

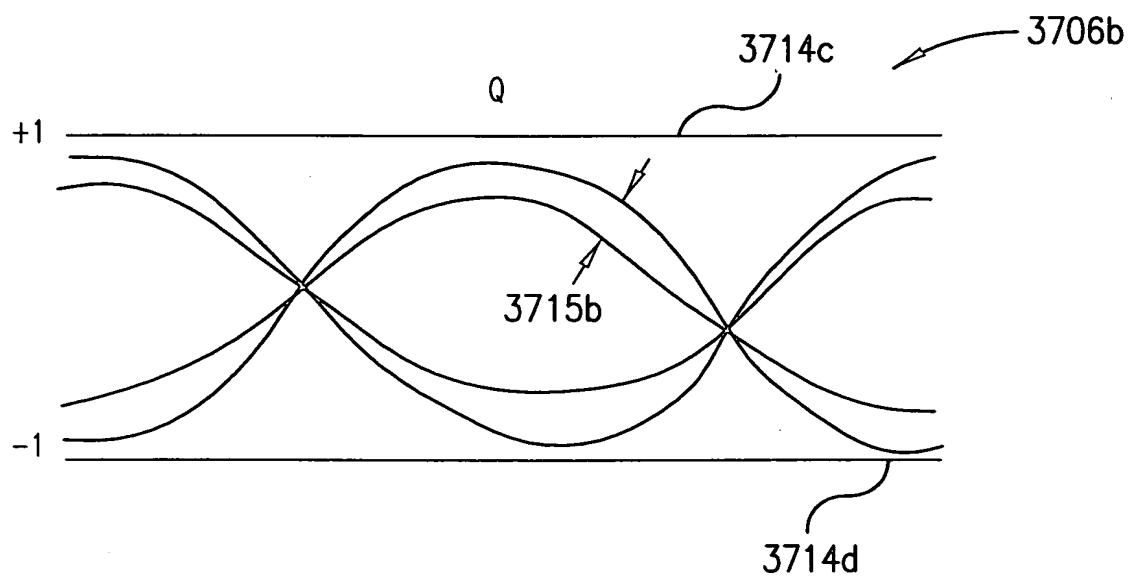


FIG. 37C

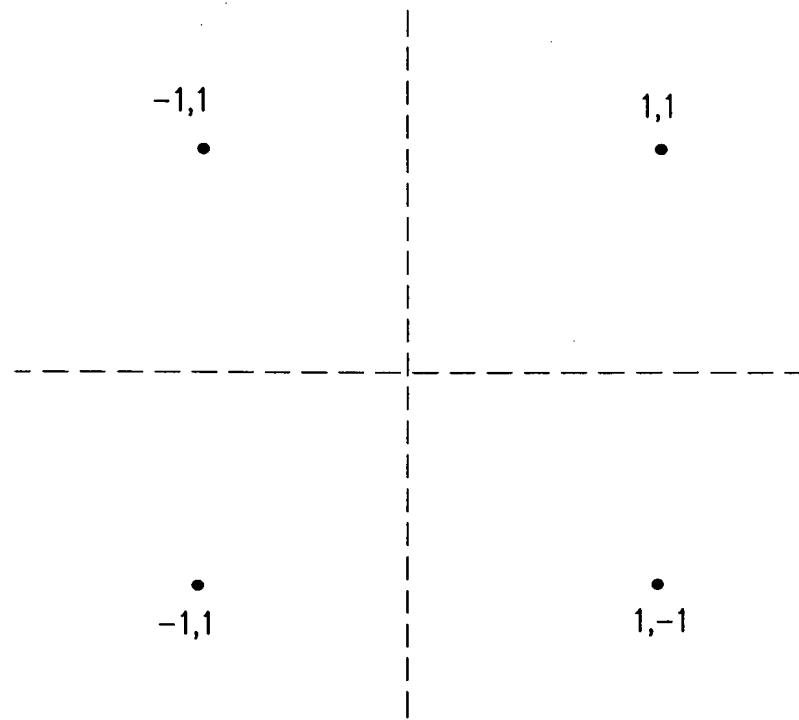


FIG.37D

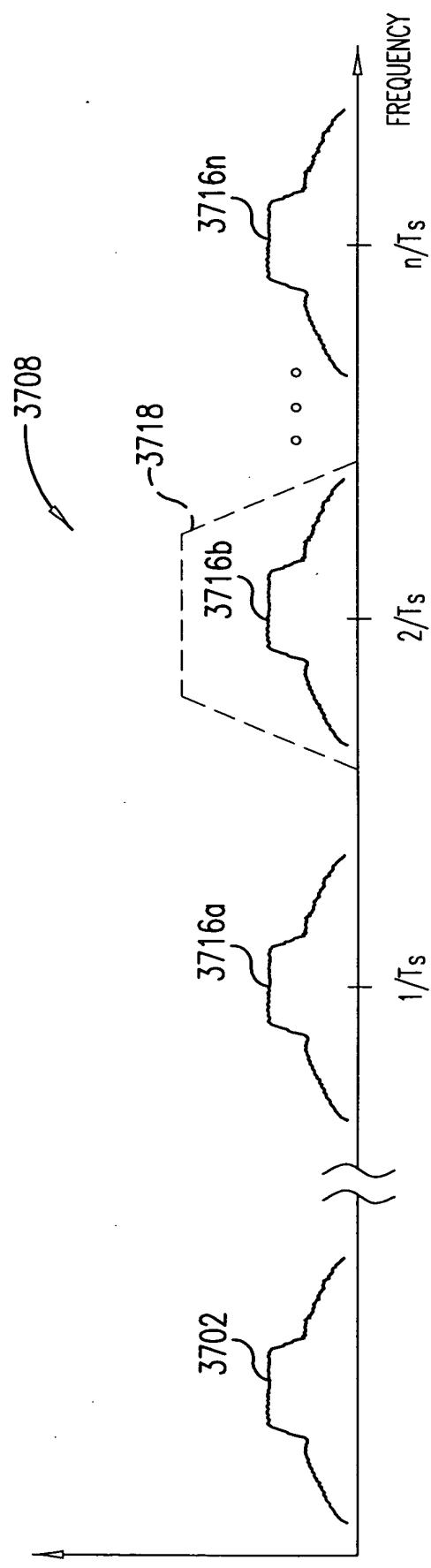


FIG. 37E

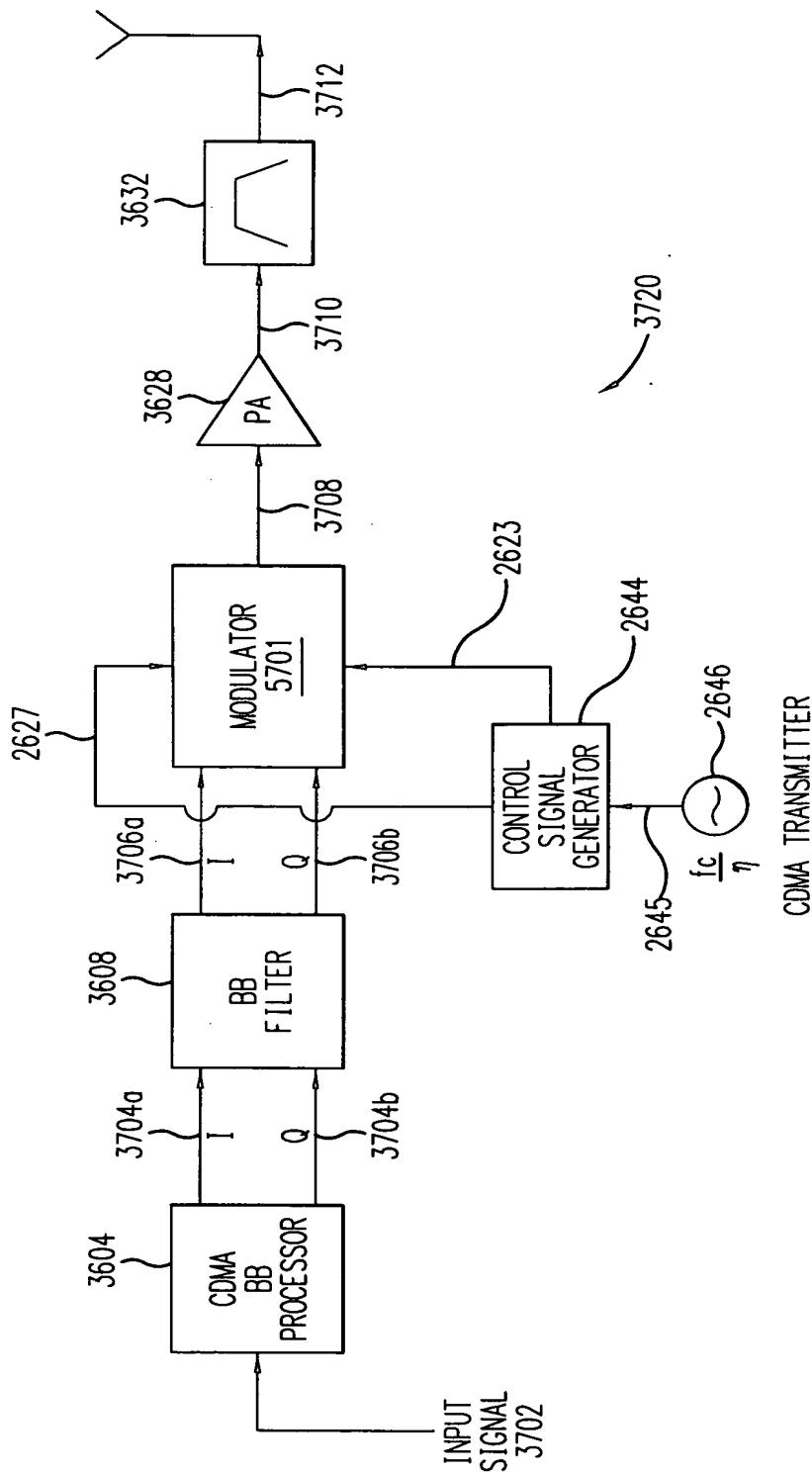


FIG. 37F

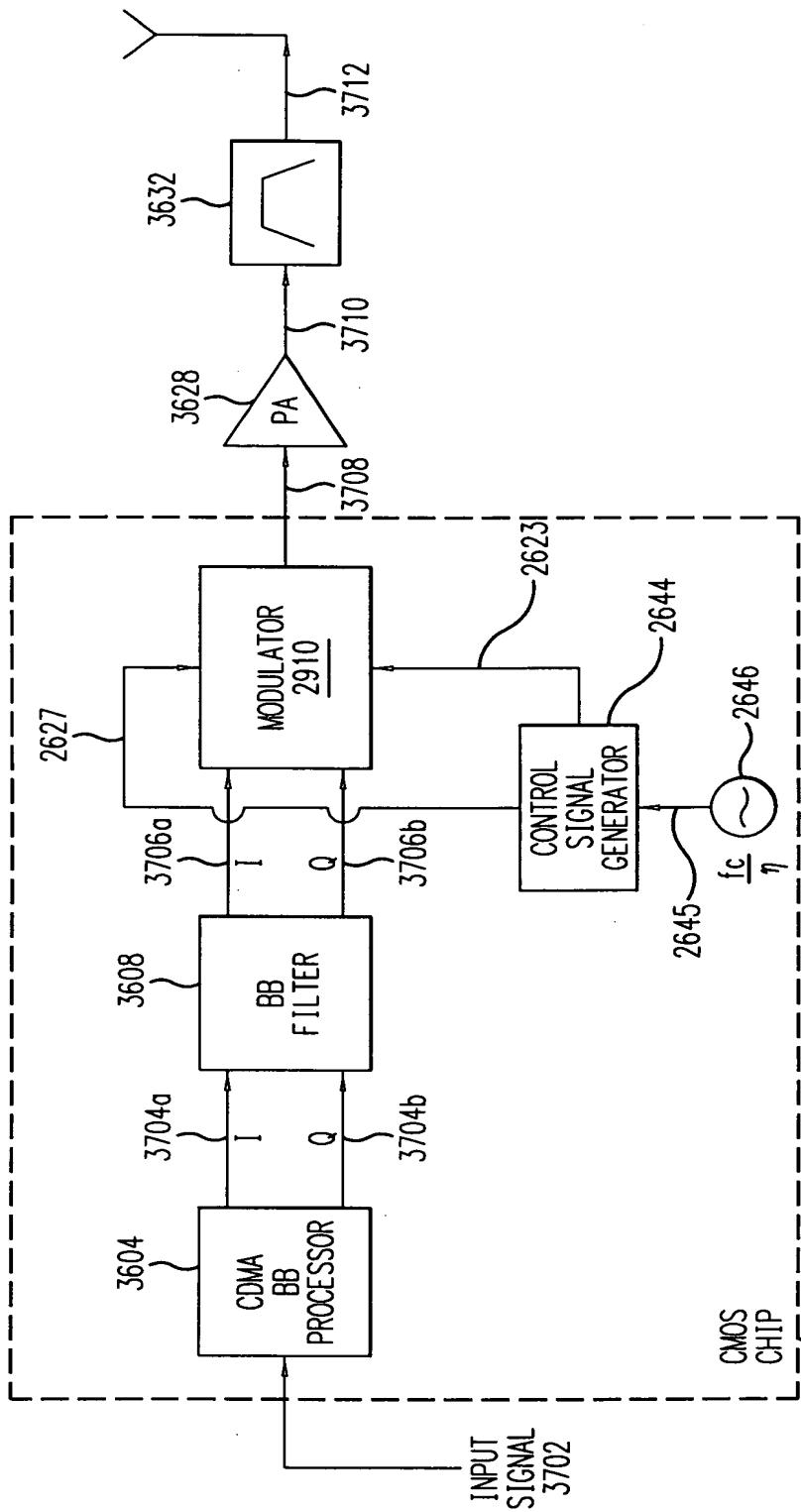


FIG. 38

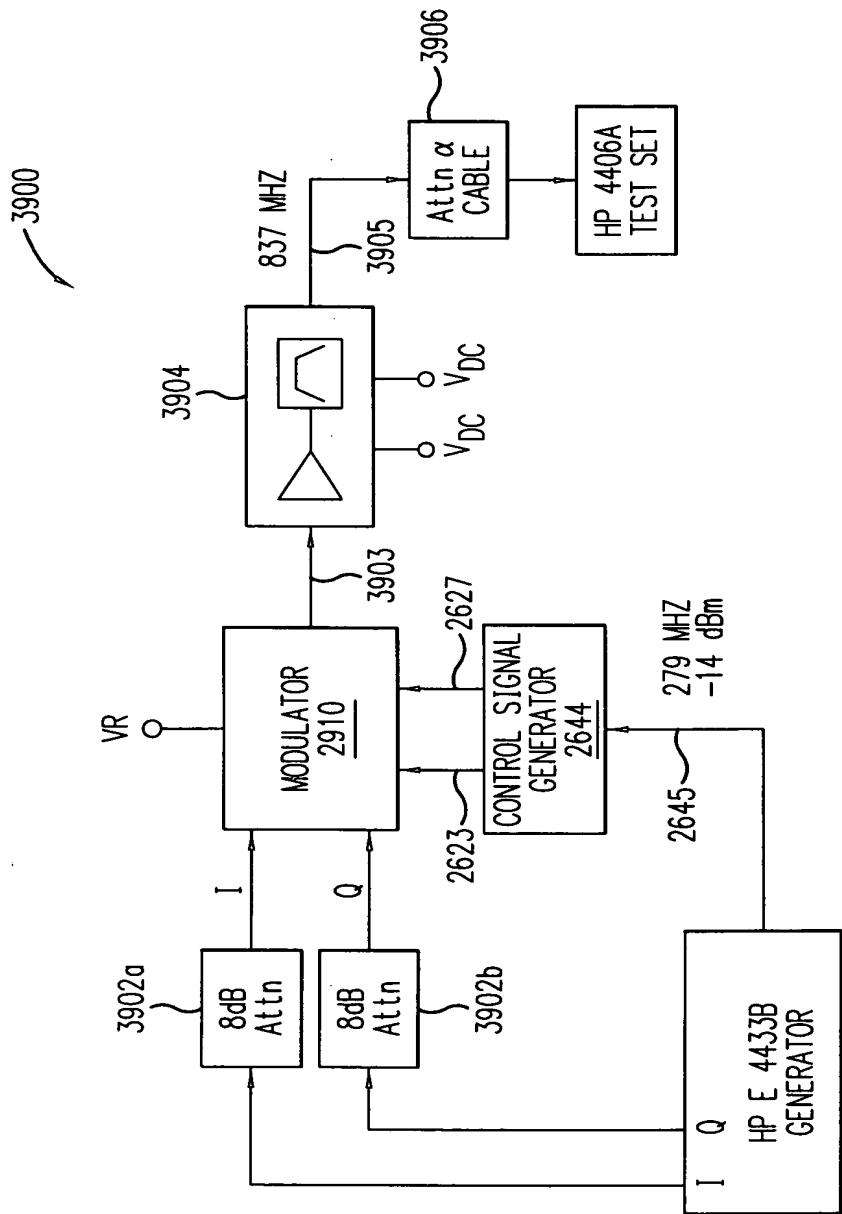


FIG. 39

JAR 12/2002  
M 12/2006

4002 → BASE STATION

RHO	0.9970
EVM	5.51%
PHASE ERROR	1.80°
MAGNITUDE ERROR	4.53%
CARRIER INSERTION	-37.91 dB
PA POWER OUT	28.06 dBm

FIG.40

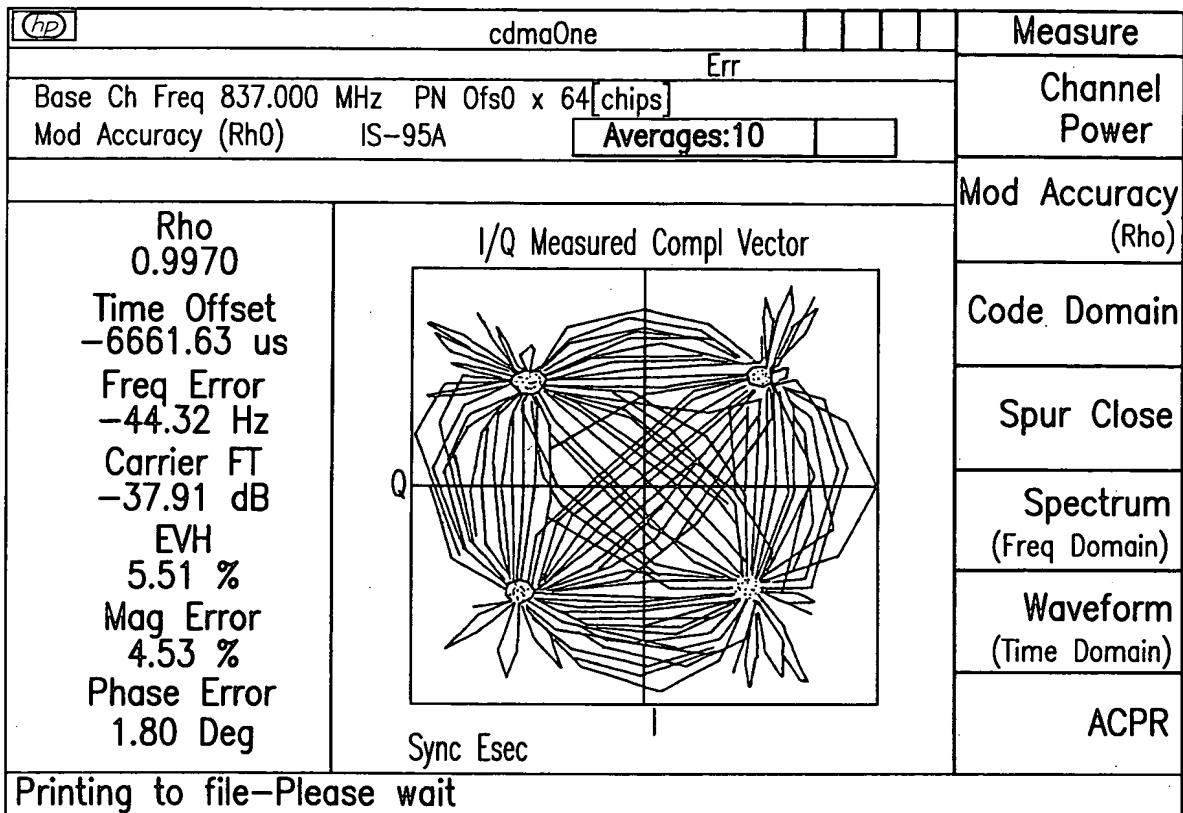
4102 →

FREQUENCY (MHz) (MOBILE STATION)

	LOW	MIDDLE	HIGH
RHO	0.9892	0.9969	0.9892
EVM	10.39%	5.54%	10.39%
PHASE ERROR	4.47°	2.24°	4.08°
MAGNITUDE ERROR	6.84%	4.21%	8.27%
CARRIER INSERTION	-40.15 dB	-44.58 dB	-35.27 dB
PA POWER OUT	27.36 dBm	28.11 dBm	27.55 dBm

FIG.41

18/20

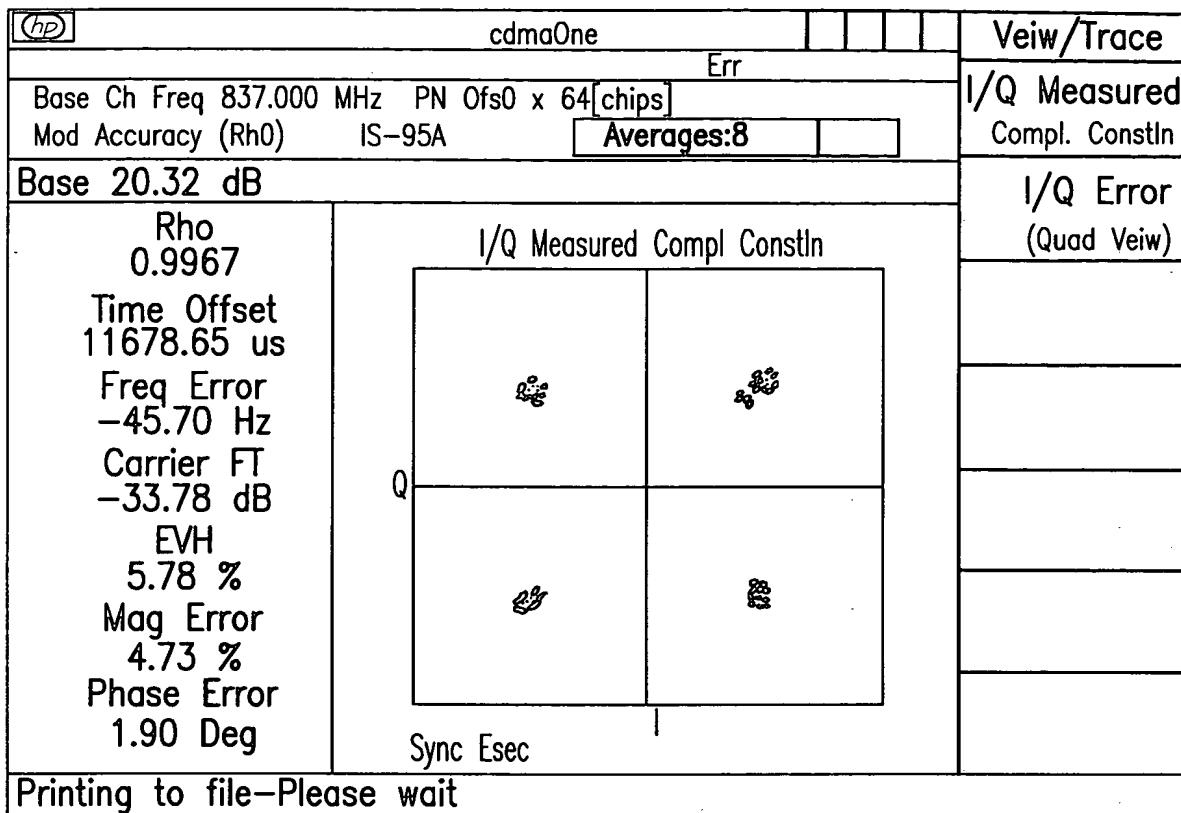


BASE STATION CONSTELLATION FOR PILOT CHANNEL TEST

FIG.42

4202

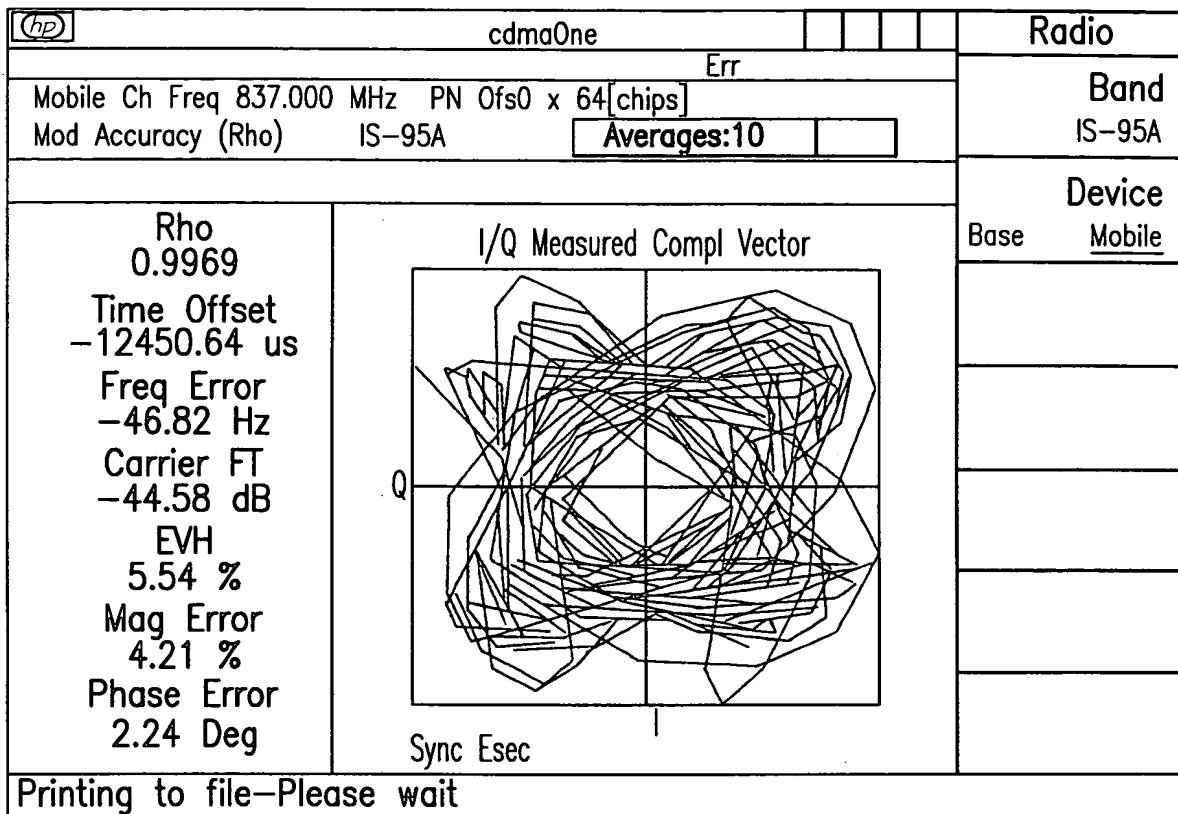
MAR 13 2006



## BASE STATION SAMPLED CONSTELLATION

FIG. 43

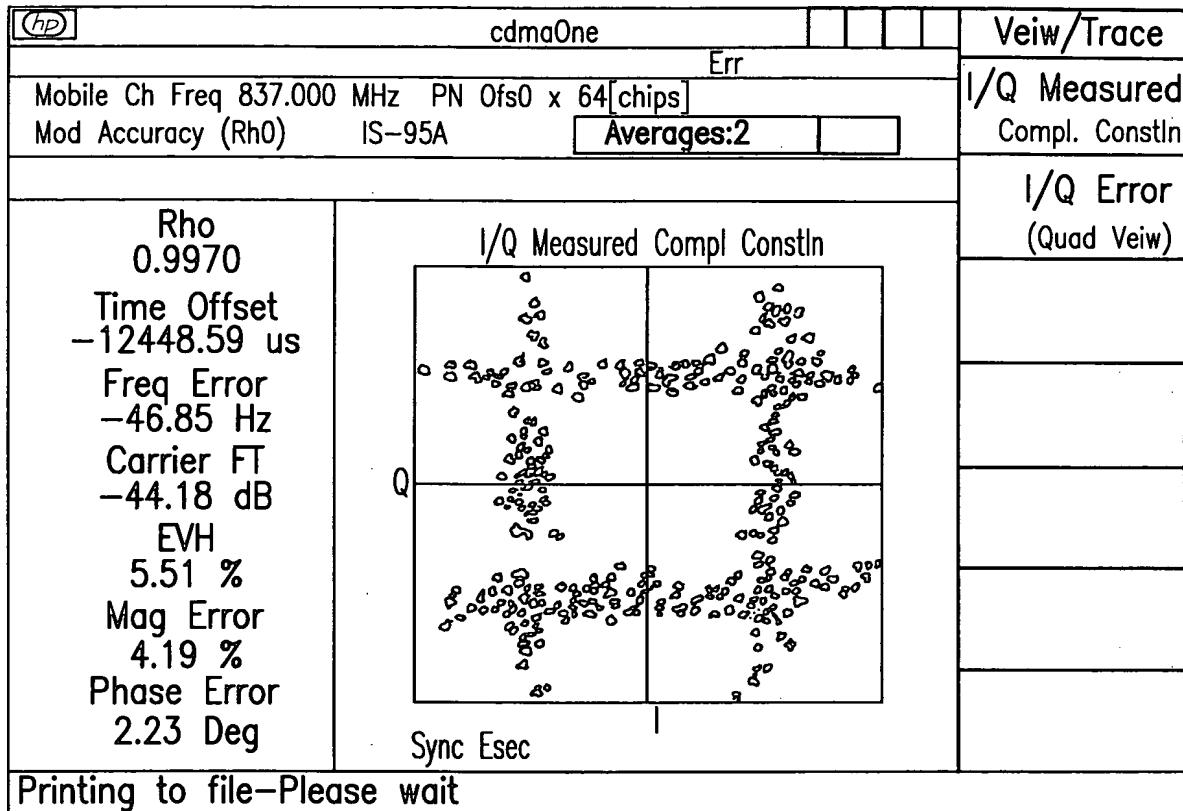
4302



MOBILE STATION CONSTELLATION FOR ACCESS CHANNEL TEST

FIG.44

4402

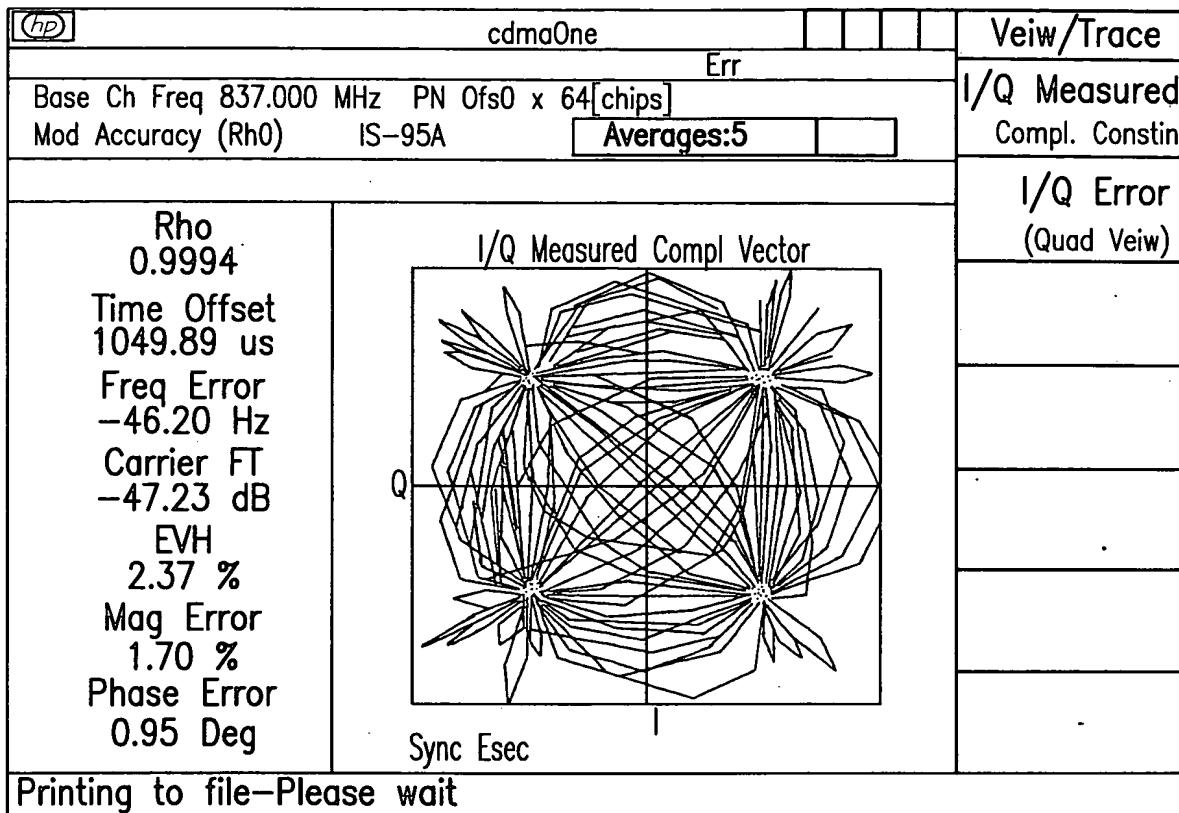


MOBILE STATION SAMPLED CONSTELLATION

FIG.45

4502

MAR 1 2008

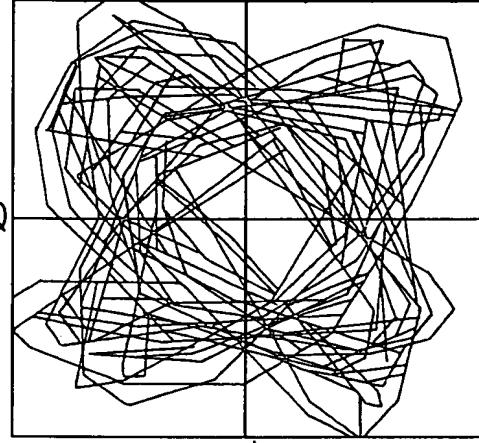


BASE STATION CONSTELLATION USING  
ONLY H/P TEST EQUIPMENT

FIG.46

4602

MAR 13 2000

		cdmaOne	Err	Measure
Mobile Ch Freq 837.000 MHz PN Ofset 0 x 64[chips] Mod Accuracy (Rho0) IS-95A		Averages:4		Channel Power
Rho 0.9991 Time Offset 5482.51 us Freq Error -46.10 Hz Carrier FT -47.18 dB EVH 2.98 % Mag Error 2.18 % Phase Error 1.28 Deg		<p>I/Q Measured Compl Vector</p> 		Mod Accuracy (Rho)
Printing to file—Please wait				Code Domain
				Spur Close
				Spectrum (Freq Domain)
				Waveform (Time Domain)
				ACPR

MOBILE CONSTELLATION USING ONLY H/P TEST EQUIPMENT

FIG.47

4702

MAR 13 2000

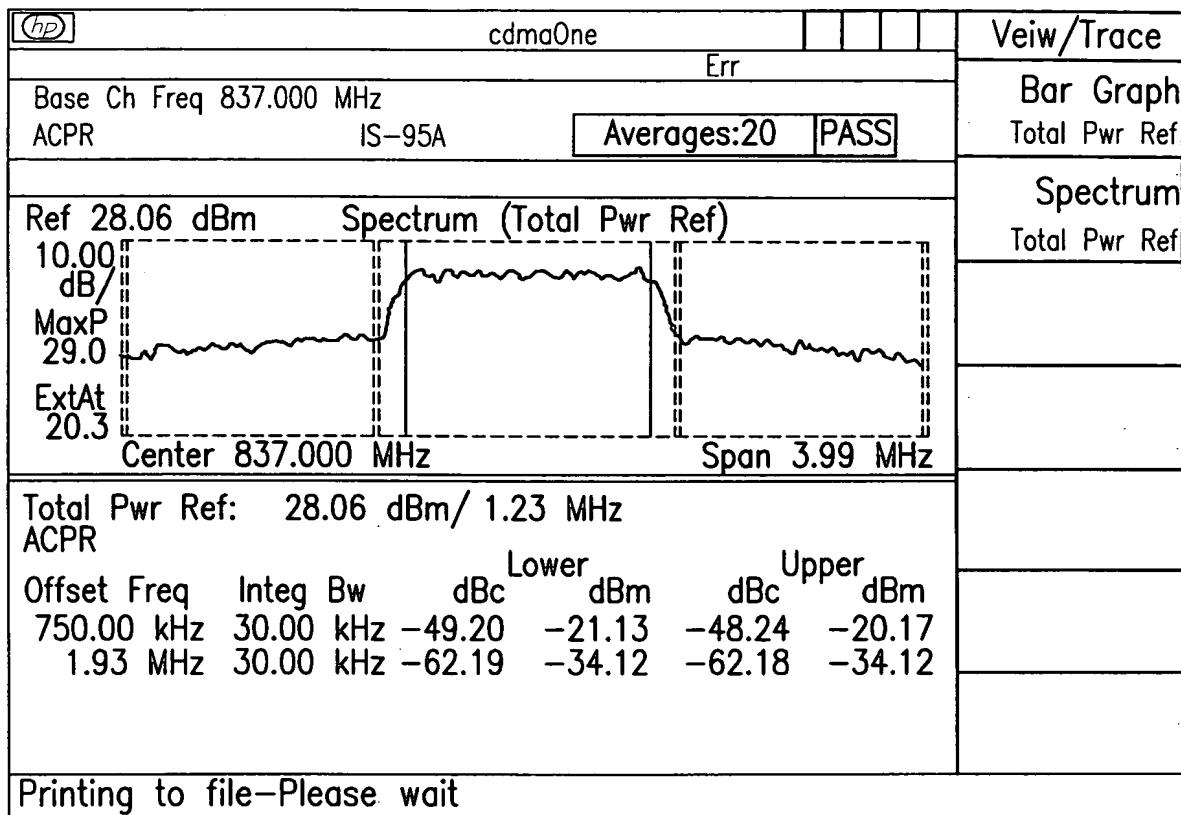
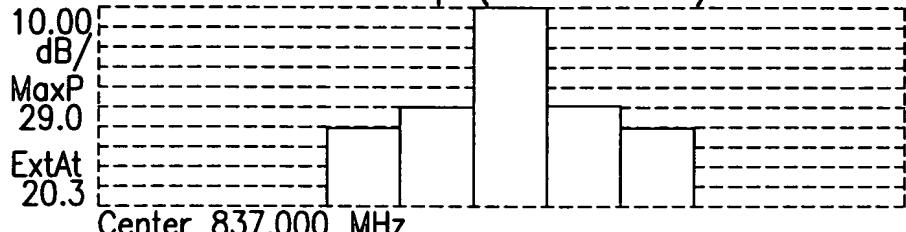


FIG.48

4802

	cdmaOne	Err	Measure			
Base Ch Freq 837.000 MHz ACPR	IS-95A	Averages:12 <b>PASS</b>	Channel Power			
Ref 28.08 dBm	Bar Graph (Total Pwr Ref)		Mod Accuracy (Rho)			
10.00 dB MaxP 29.0 ExtAt 20.3 Center 837.000 MHz			Code Domain			
Total Pwr Ref: 28.08 dBm / 1.23 MHz ACPR			Spectrum (Freq Domain)			
Offset Freq	Integ Bw	Lower dBc	Upper dBc			
750.00 kHz 1.93 MHz	30.00 kHz	-49.23 -34.07	-21.15 -62.14	-48.20 -62.14	-20.12 -34.06	Waveform (Time Domain)
ACPR						ACPR
Printing to file—Please wait						

BASE STATION SPECTRAL RESPONSE WITH MASK

FIG.49

4902

MAR 13 2006

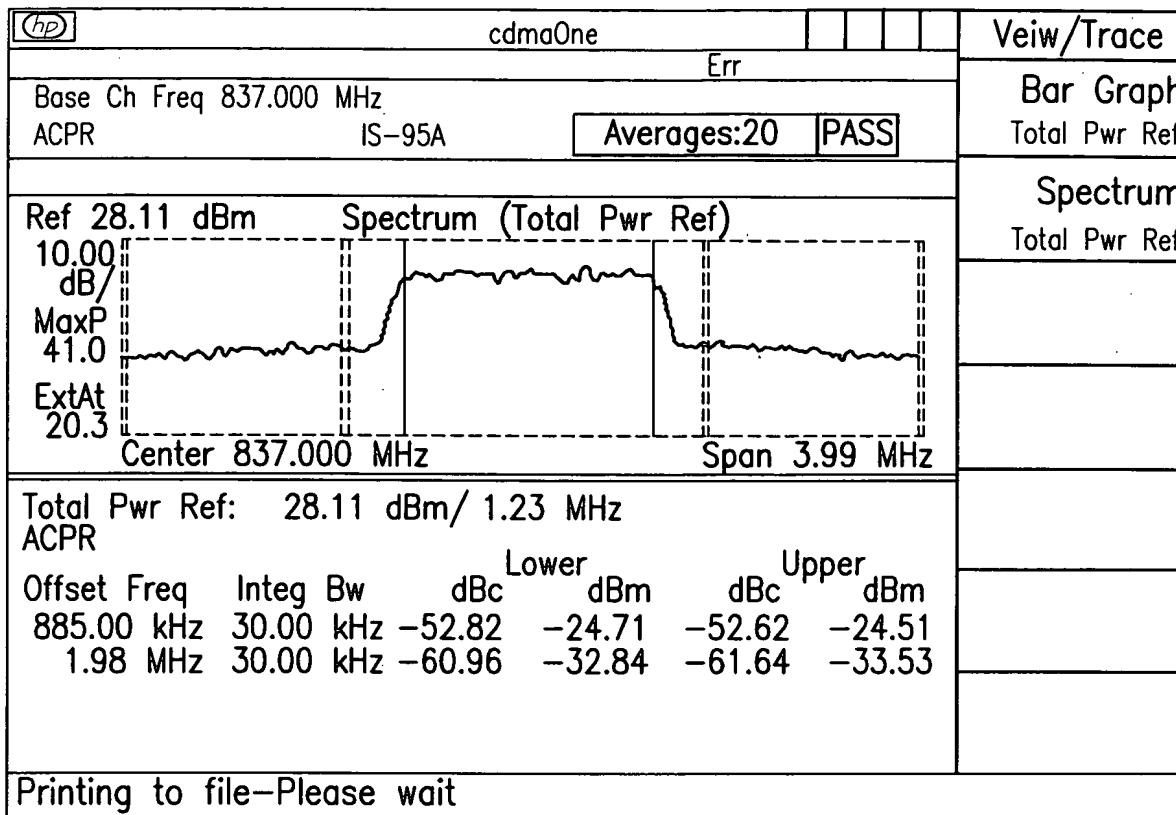


FIG.50

5002

MAR 13 2000

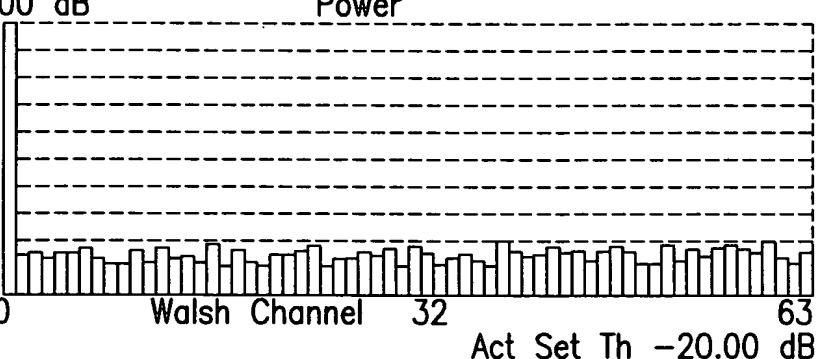
cdmaOne		Err	Measure		
Mobile Ch Freq 837.000 MHz	ACPR	IS-95A	Channel Power		
		Averages:20	PASS		
Ref 28.11 dBm	Bar Graph (Total Pwr Ref)		Mod Accuracy (Rho)		
10.00 dB	MaxP		Code Domain		
41.0	ExtAt		Spur Close		
20.3	Center 837.000 MHz		Spectrum (Freq Domain)		
Total Pwr Ref: 28.11 dBm/ 1.23 MHz	ACPR		Waveform (Time Domain)		
Offset Freq	Integ Bw	Lower dBc	Upper dBc	ACPR	
885.00 kHz	30.00 kHz	-52.80	-24.69	-52.65	-24.54
1.98 MHz	30.00 kHz	-60.95	-32.84	-61.62	-33.51
Printing to file—Please wait					

MOBILE STATION SPECTRAL RESPONSE WITH MASK

FIG.51

5102

MAR 13 2006

 cdmaOne		Err	Measure
Base Ch Freq 837.000 MHz PN Ofset 0 x 64 [chips]			Channel Power
Code Domain IS-95A Averages:5			
		Mod Accuracy (Rho)	
		Code Domain	
		Spur Close	
		Spectrum (Freq Domain)	
Time Ofset: 5882.3 us Pilot: 0.0 dB Avg AT: -999.0 dB		Waveform (Time Domain)	
Freq Error: -44.9 Hz Paging: -43.1 dB Max IT: -40.2 dB			
Carrier FT: -34.7 dB Sync: -41.7 dB Avg IT: -42.9 dB			
ACPR			
Printing to file—Please wait			

CDMA CROSSTALK

FIG.52A

5202

MAR 13 2006

Sequence For IQ Input Level Variance  
CDMA IS-95A  
Rho VS SHAPED IQ INPUT LEVEL

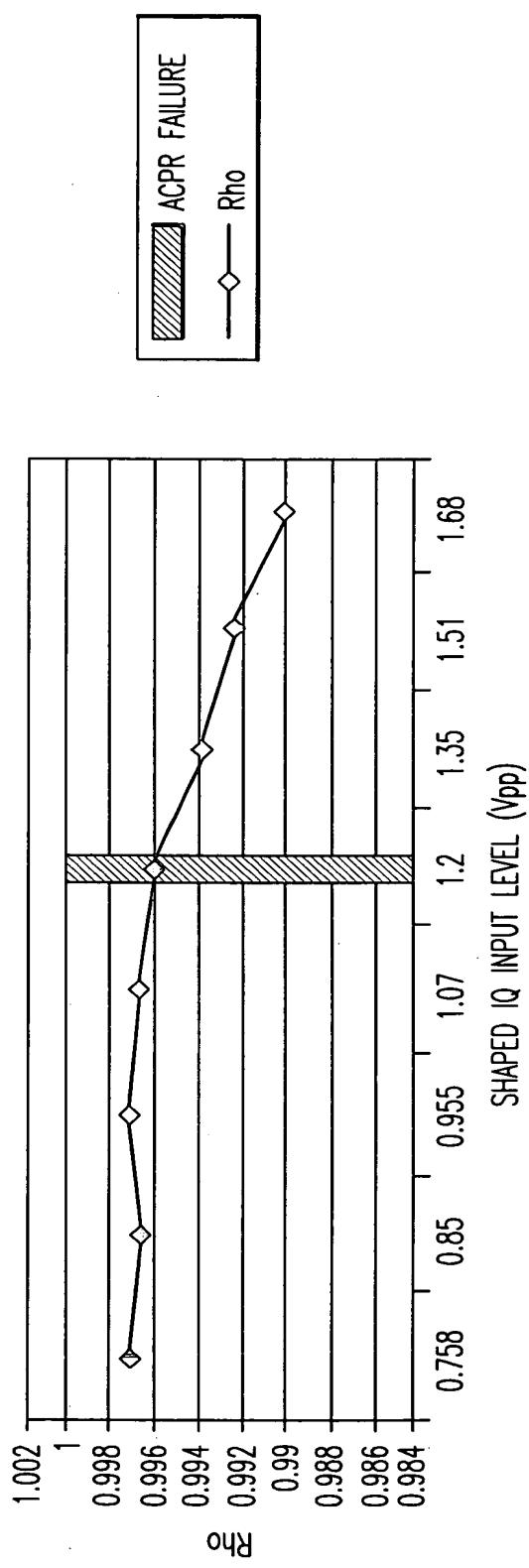
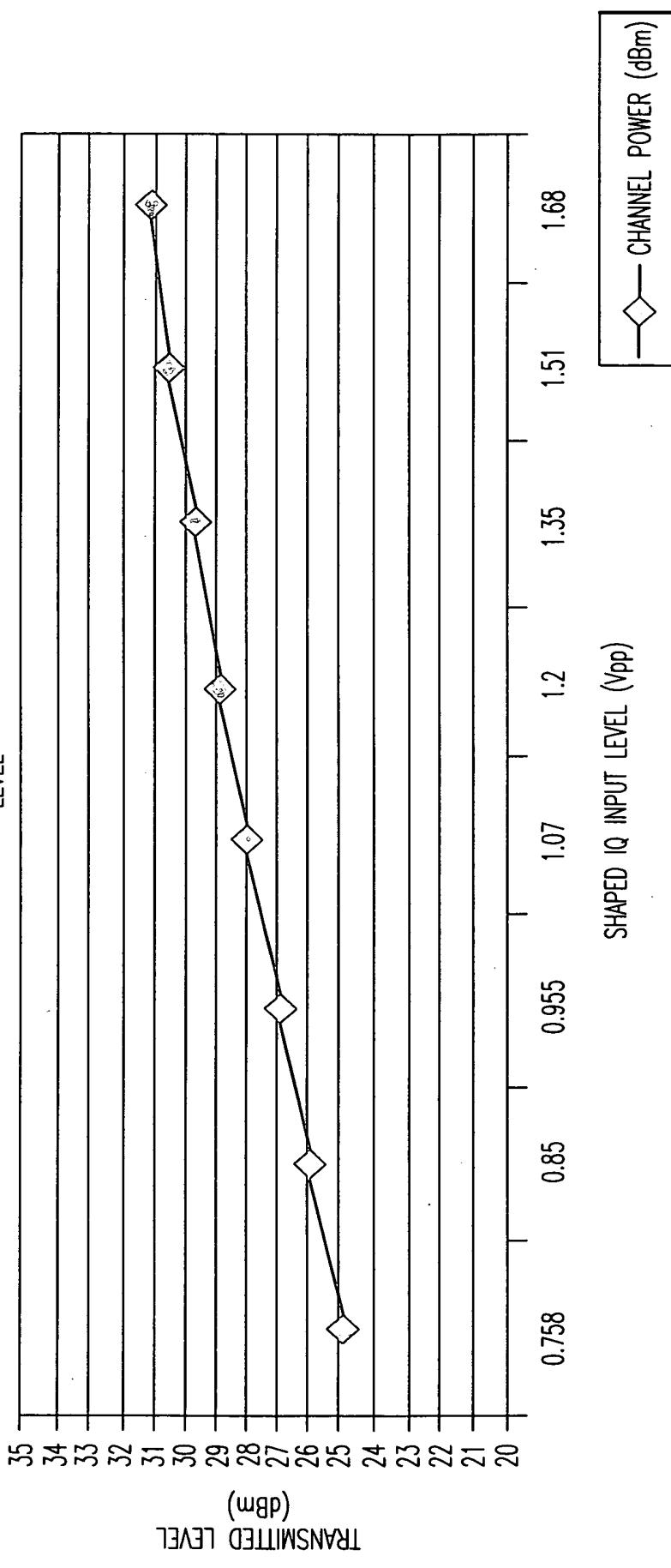


FIG.52B

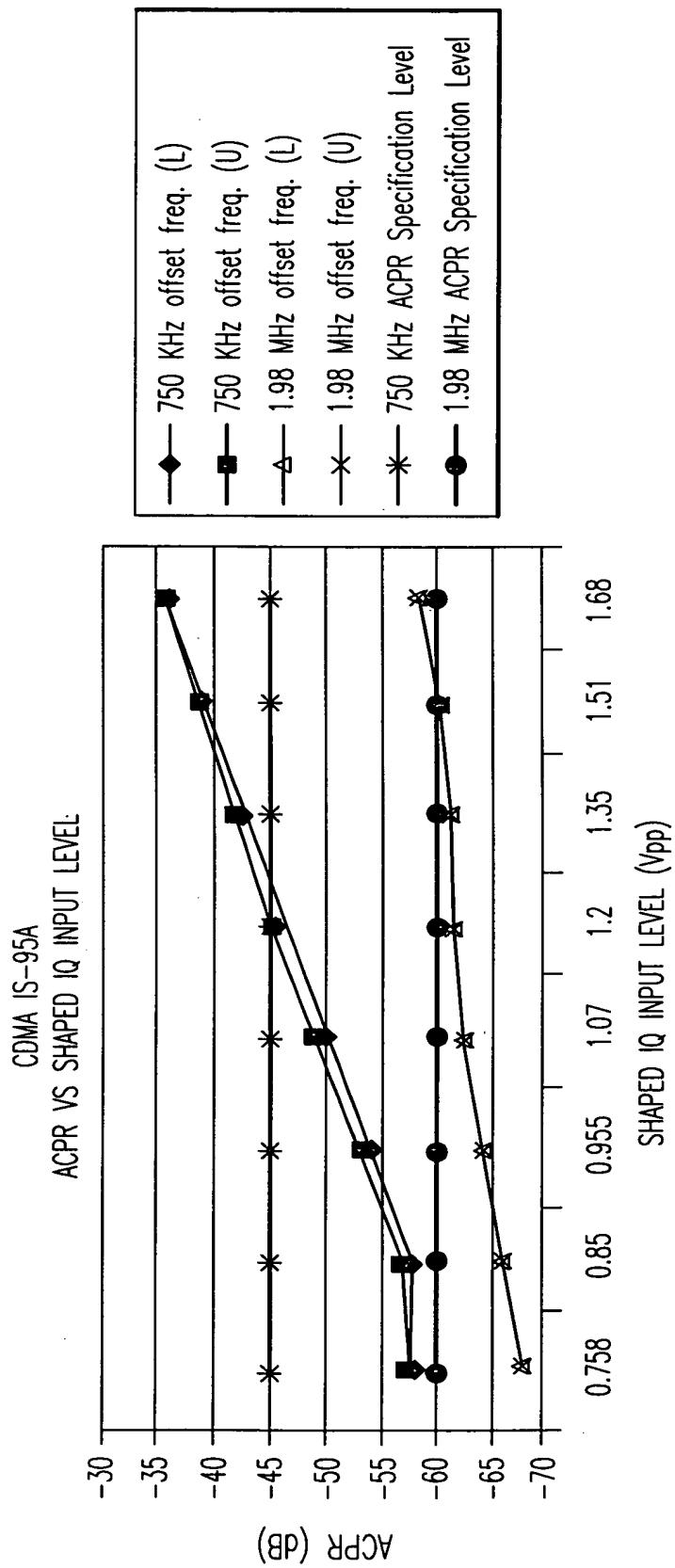
MAR 13 2006

CDMA IS-95A  
TRANSMITTED CHANNEL POWER VS SHAPED IQ INPUT  
LEVEL



MAR 13 2006

FIG. 52C



**FIG.52D**

MAR 13 2006

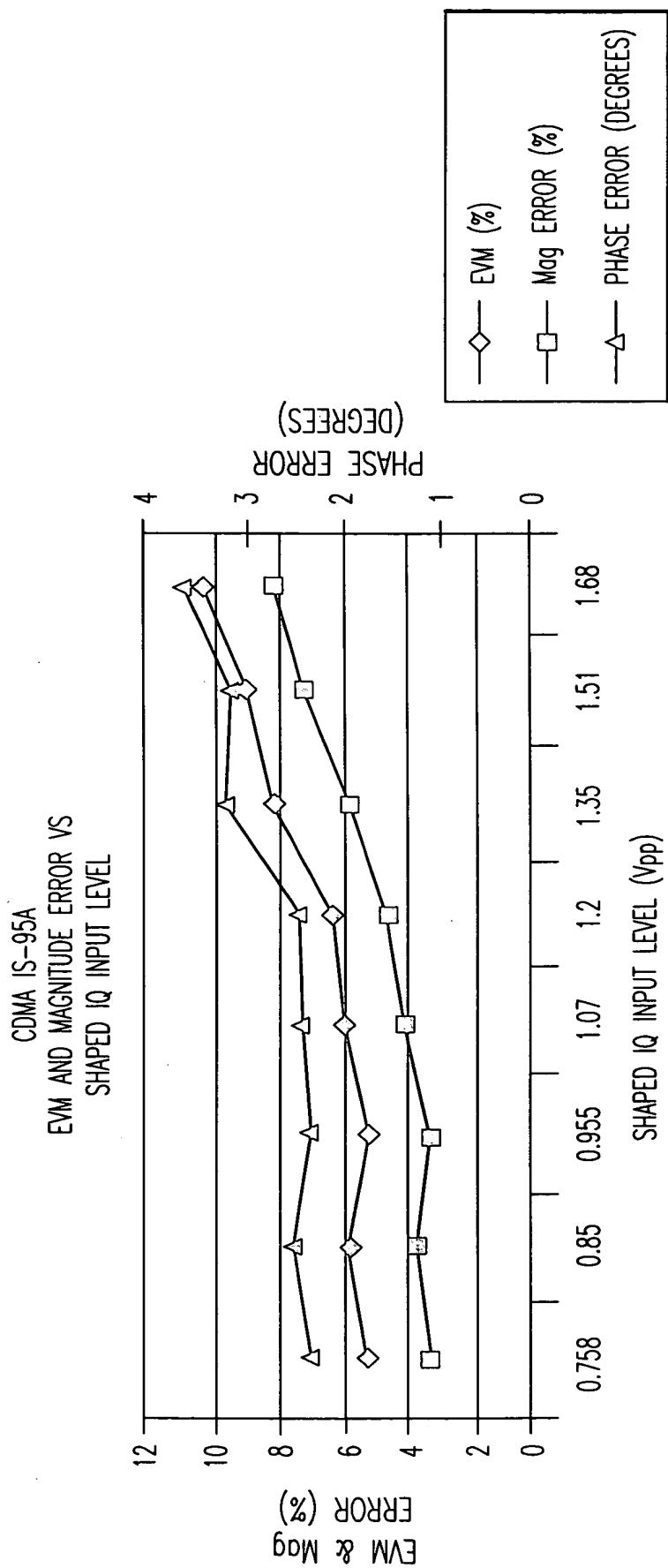


FIG. 52E

MAR 12 2006

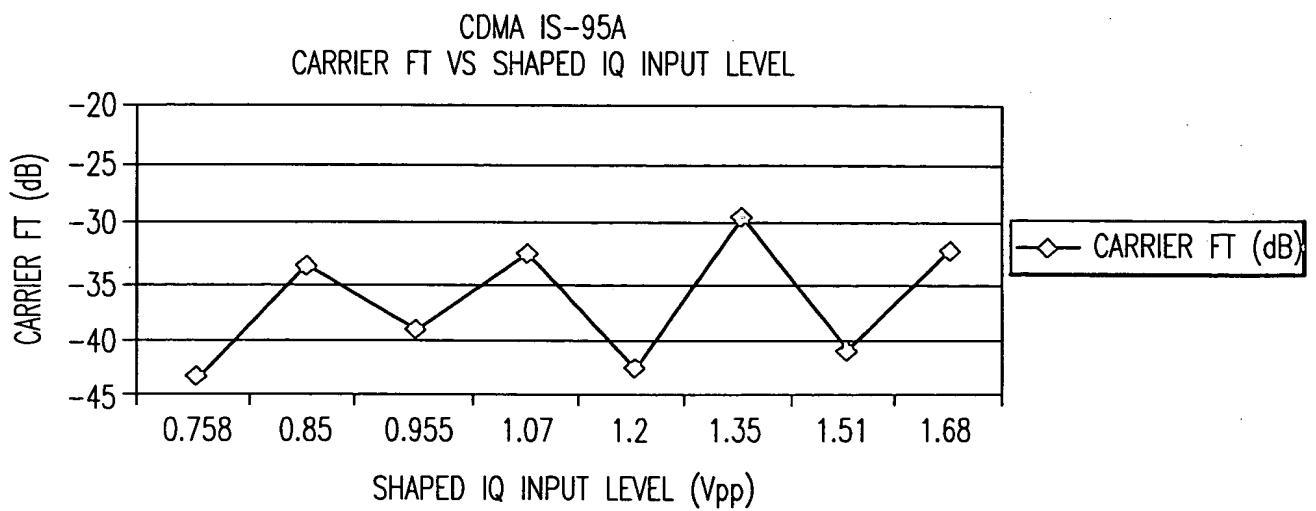


FIG.52F

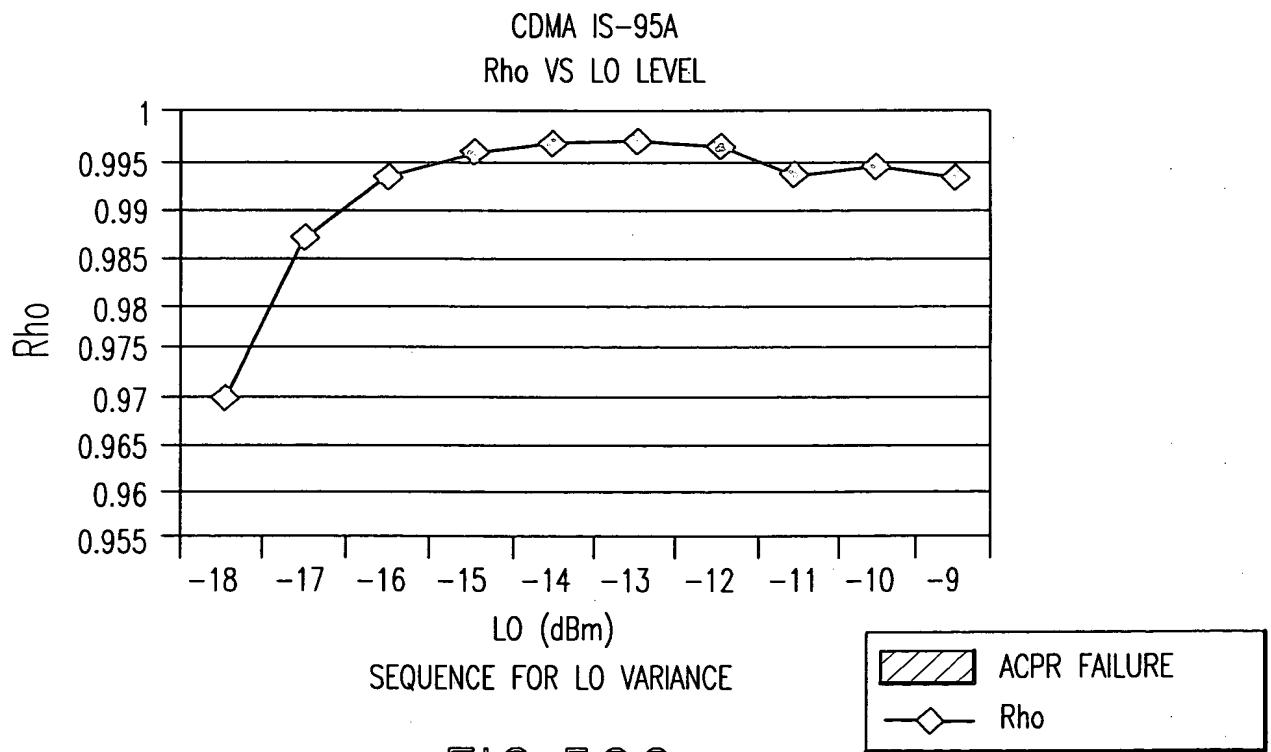


FIG.52G

MAR 13 2000

CDMA IS-95A  
TRANSMITTED CHANNEL POWER VS LO LEVEL

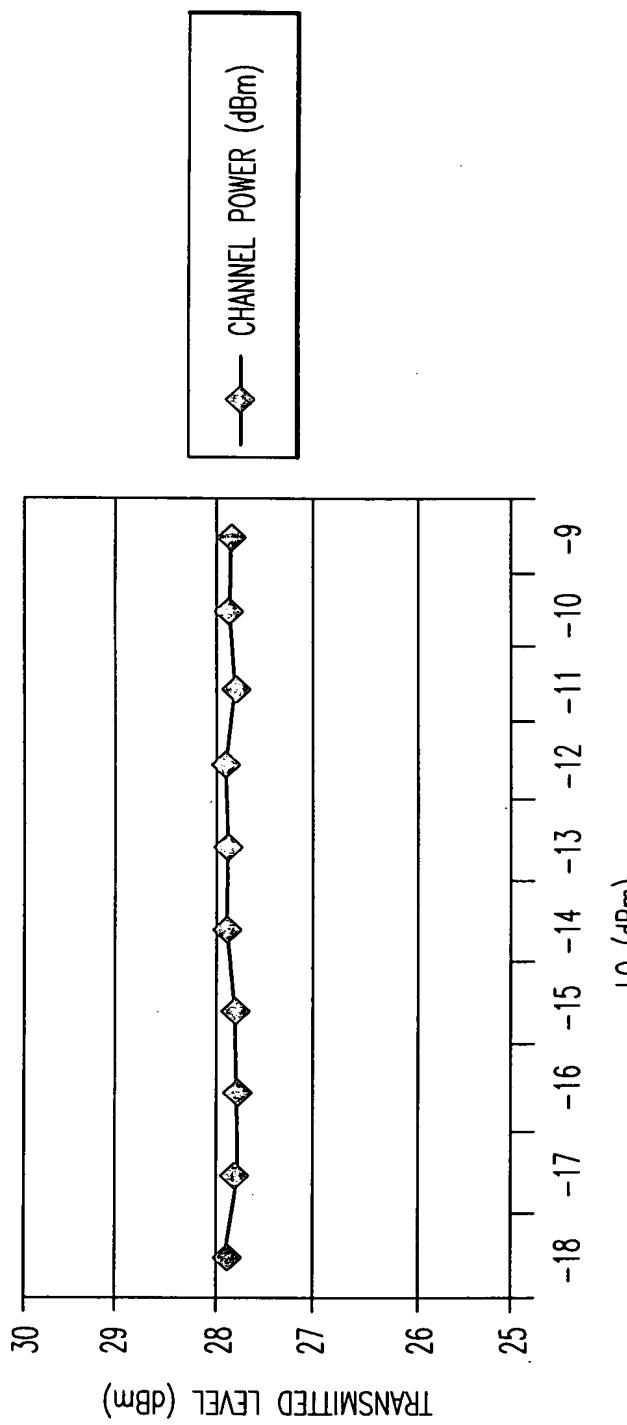


FIG. 52H

MAR 13 2006

MAR 13 2006

MAR 13 2006  
MAR 13 2006

CDMA IS-95A  
ACPR vs LO LEVEL

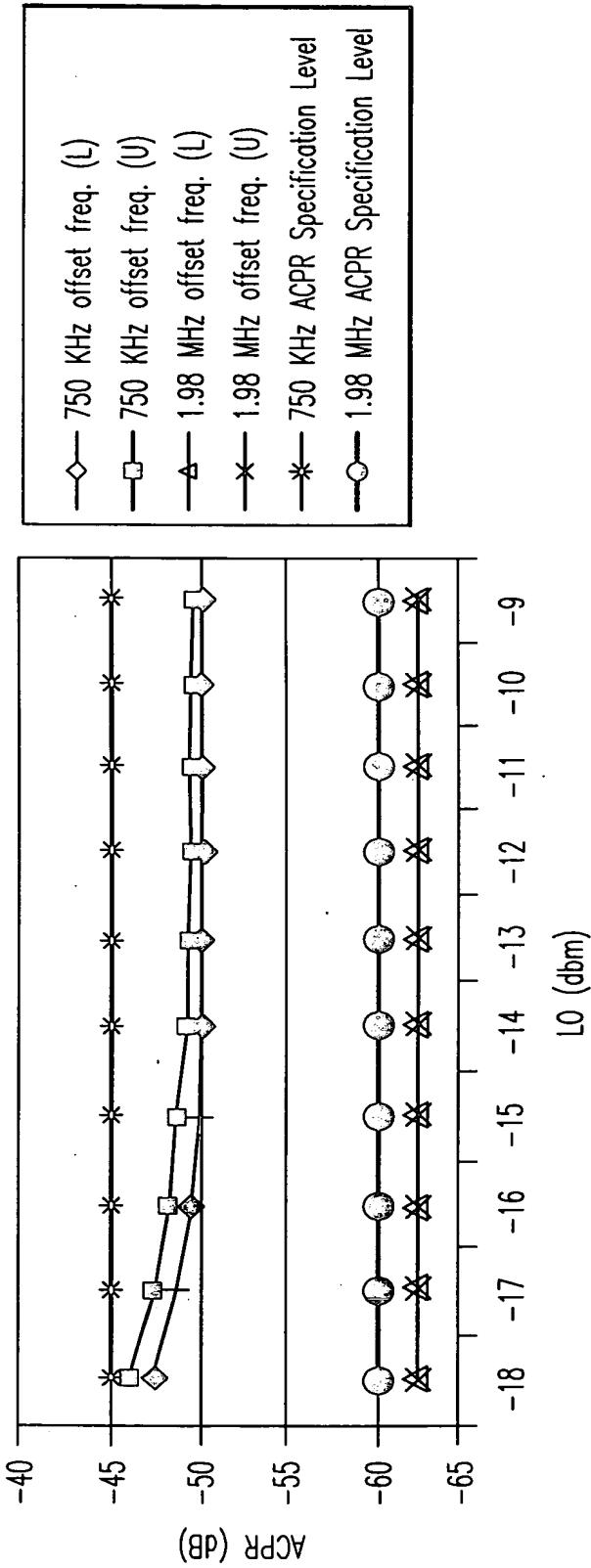
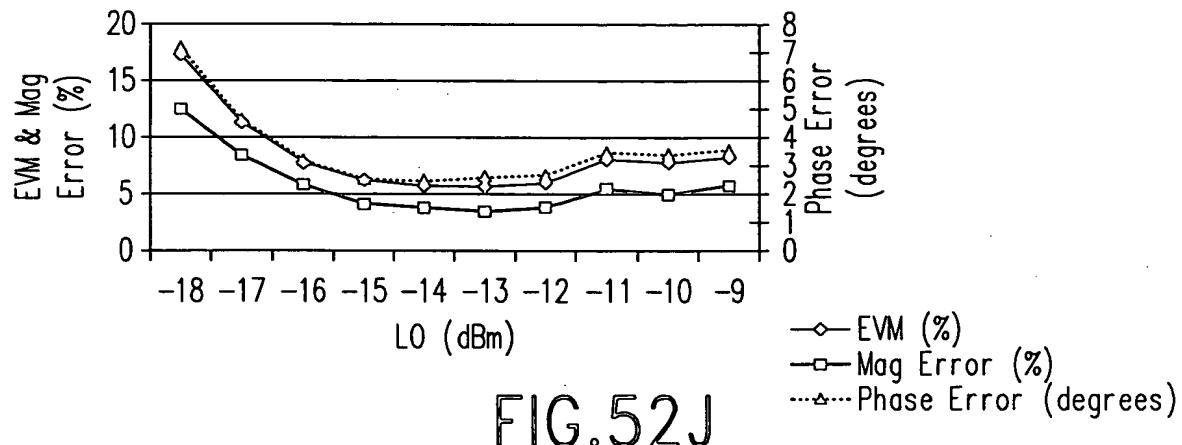


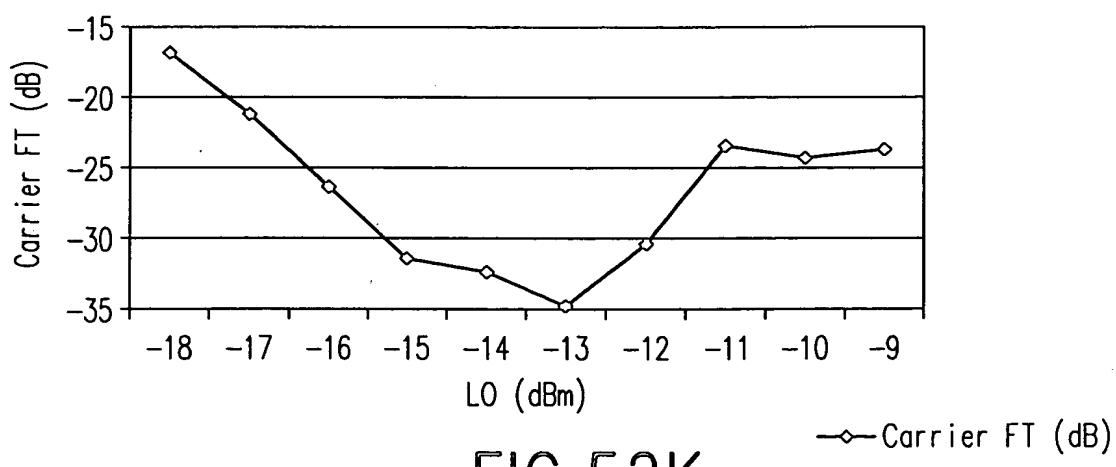
FIG.52

MAR 13 2006

CDMA IS-95A  
EVM and Magnitude Error vs  
LO Level



CDMA IS-95A  
Carrier FT vs LO Level



MAR 13 2006

CDMA IS-95A  
Carrier FT vs Shaped IQ Input Level

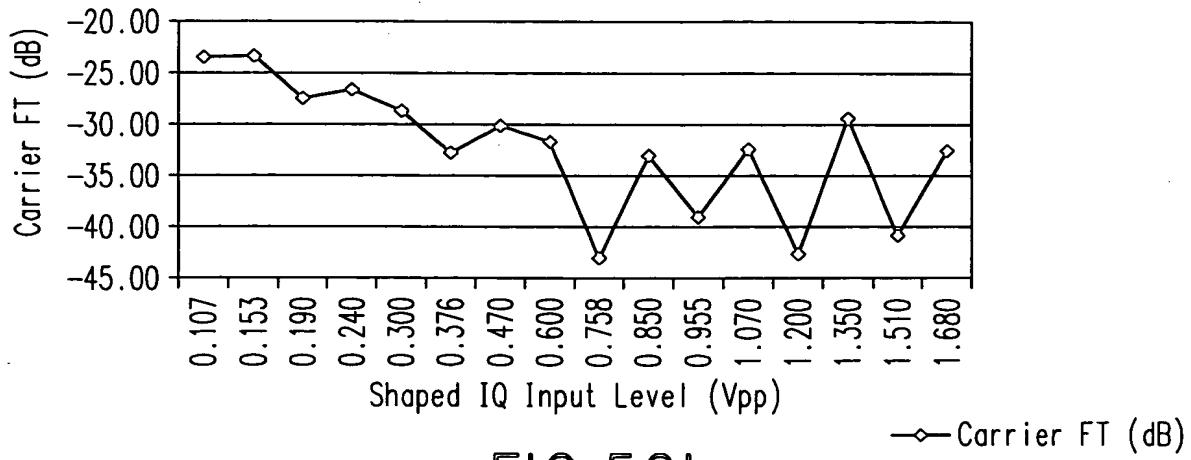
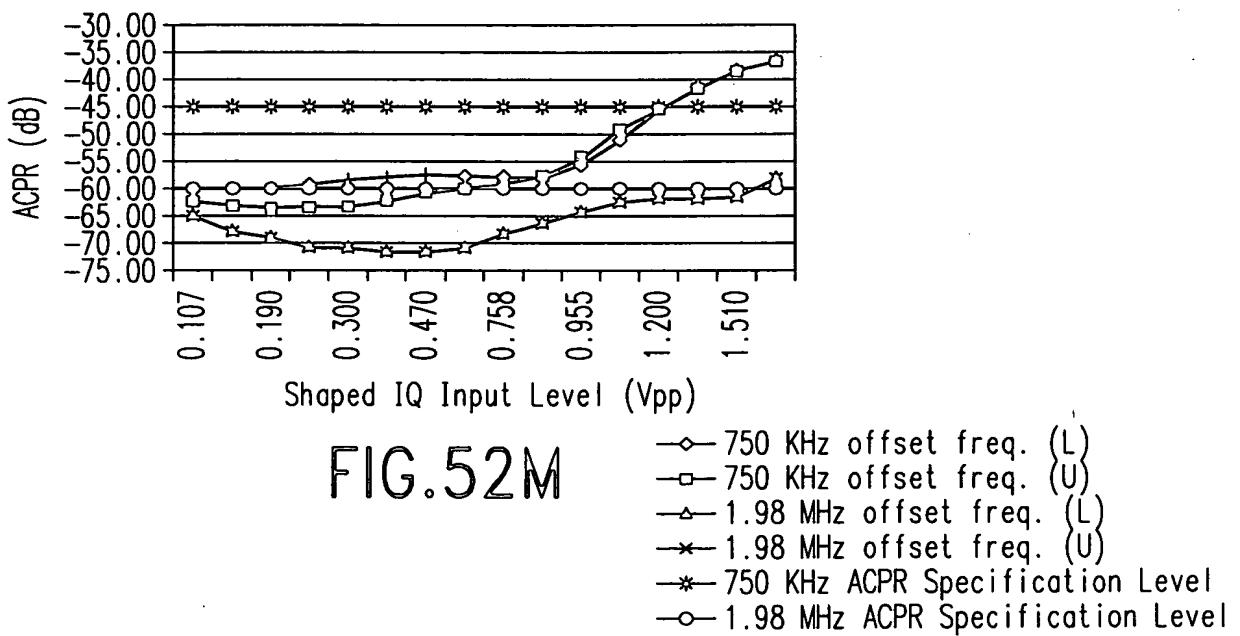


FIG.52L

CDMA IS-95A  
ACPR vs Shaped IQ Input Level



CDMA IS-95A  
Rho vs Shaped IQ Input Level

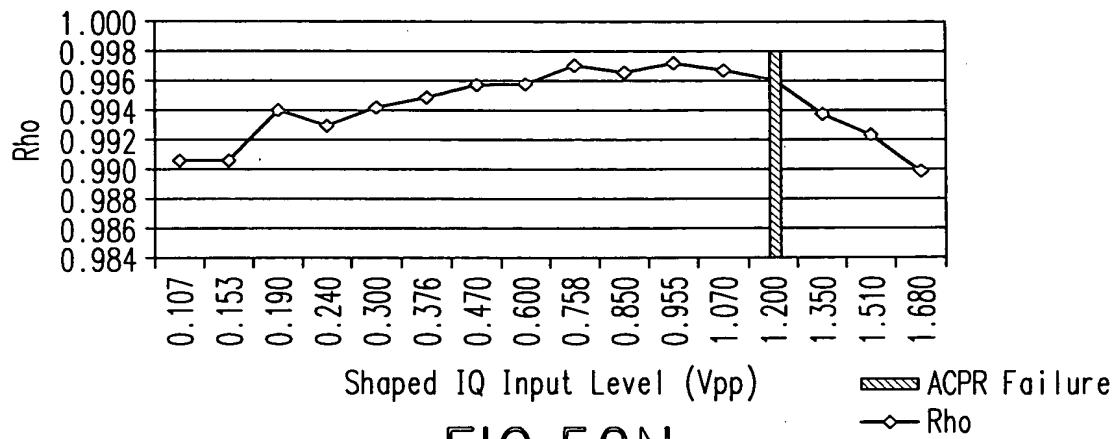


FIG.52N

CDMA IS-95A  
EVM, Magnitude Error and Phase Error  
vs Shaped IQ Input Level

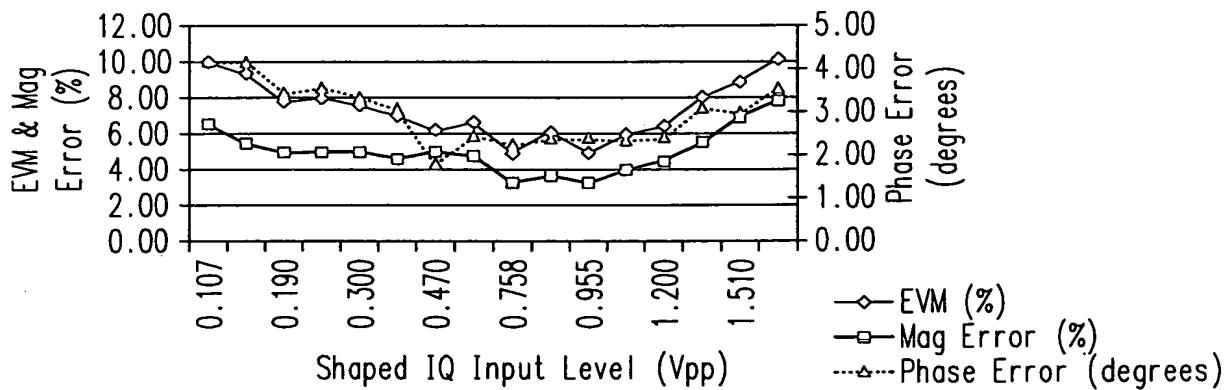


FIG.520

Sequence For IQ Input Level Variance  
 CDMA IS-95A Mobile Transmitter@+3.3V  
 Rho vs Shaped IQ Input Level

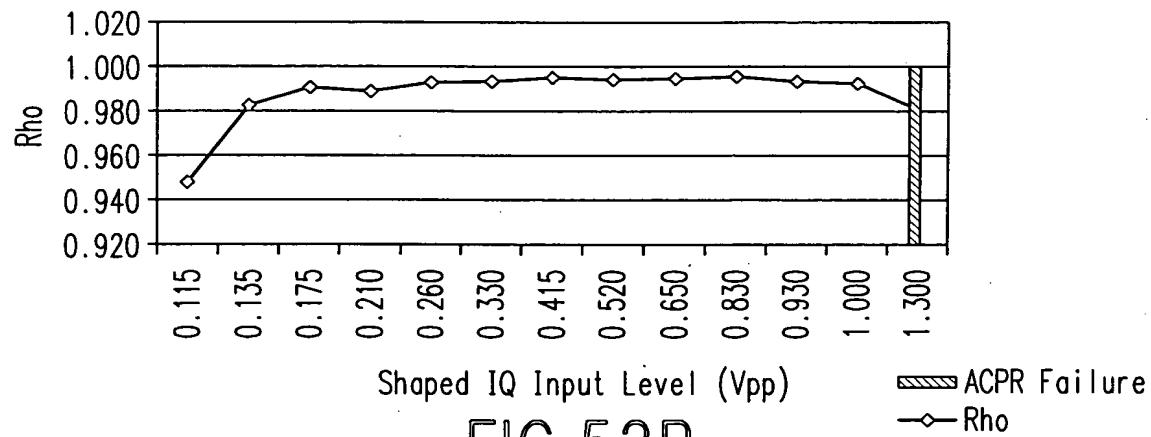


FIG.52P

CDMA IS-95A Mobile Transmitter@+3.3V  
 Transmitted Channel Power vs Shaped IQ Input Level

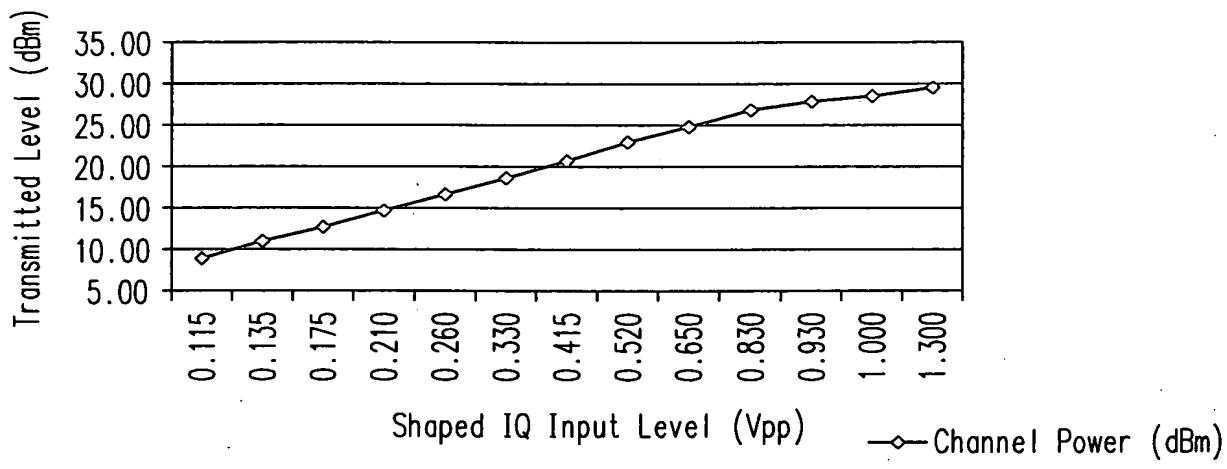
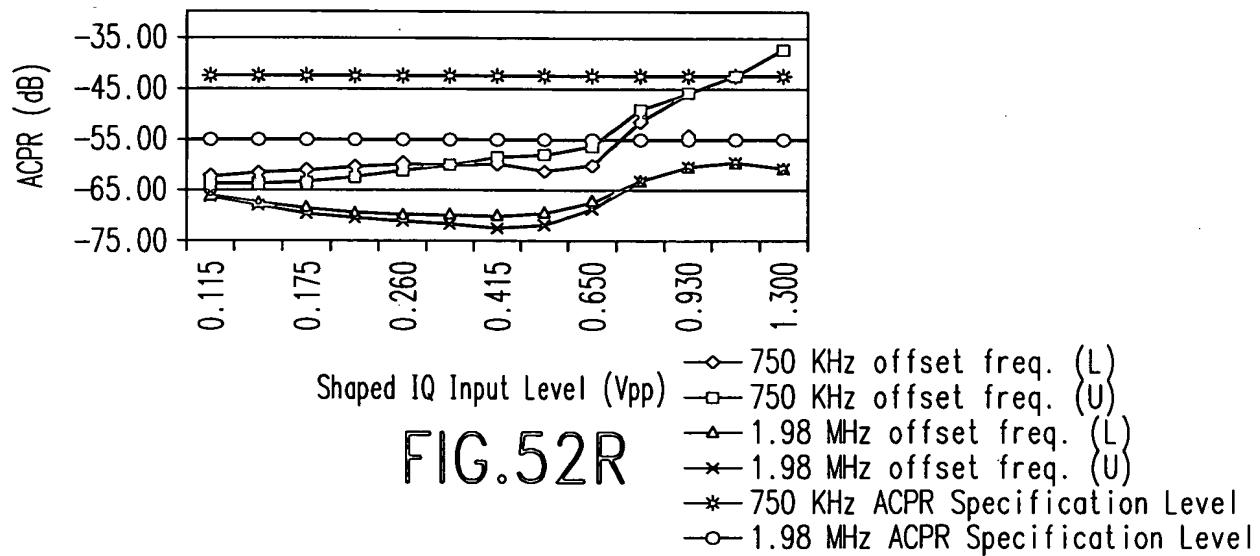
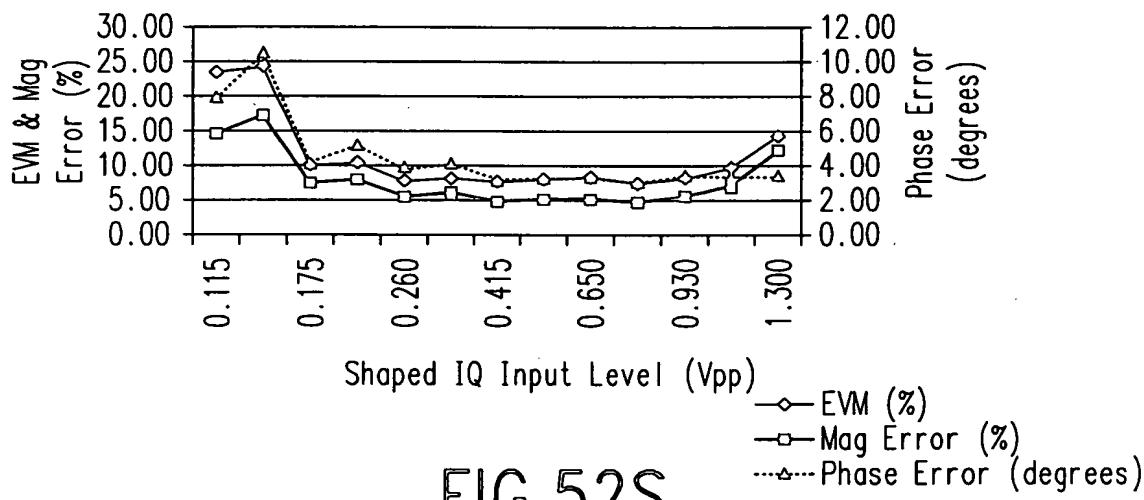


FIG.52Q

CDMA IS-95A Mobile Transmitter@+3.3V  
ACPR vs Shaped IQ Input Level



CDMA IS-95A Mobile Transmitter@+3.3V  
EVM, Magnitude Error and Phase Error  
vs Shaped IQ Input Level



MAR 13 2006

CDMA IS-95A Mobile Transmitter@+3.3V  
Carrier FT vs Shaped IQ Input Level

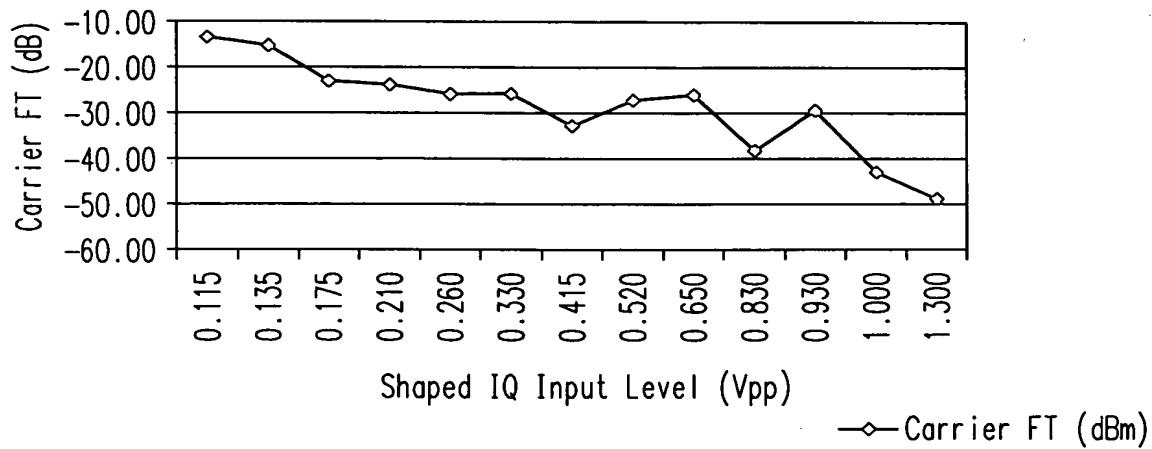


FIG.52T

Sequence For LO Variance  
CDMA IS-95A Mobile Transmitter@+3.3V  
Rho vs LO Level

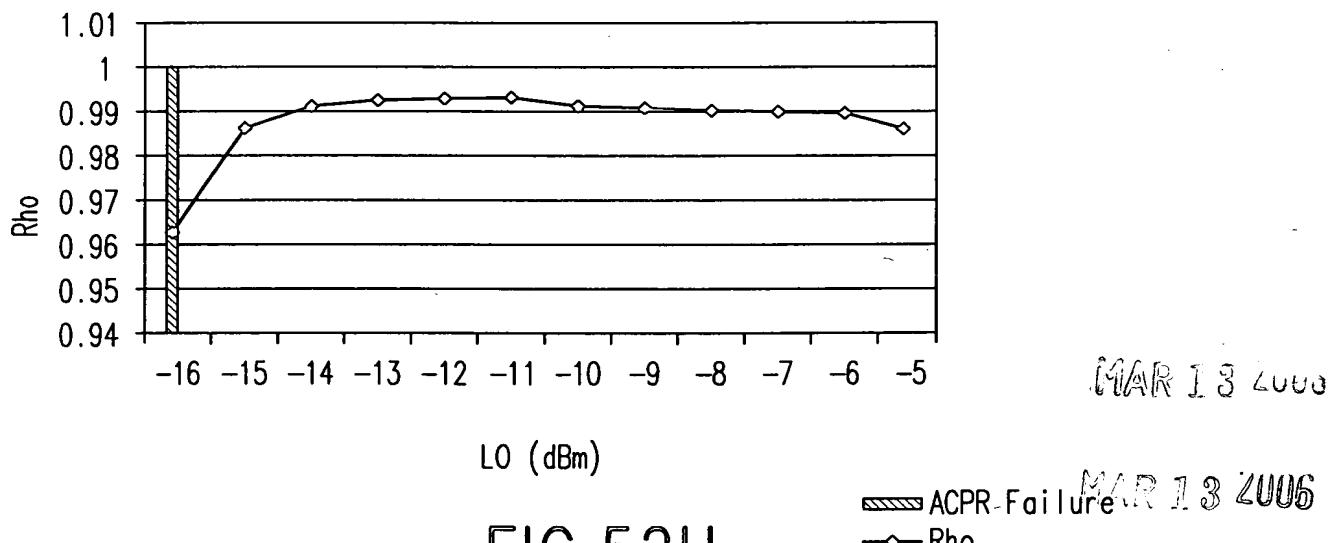


FIG.52U

MAR 13 2006  
Rho

MAR 13 2006

MAR 13 2006

CDMA IS-95A Mobile Transmitter@+3.3V  
Transmitted Channel Power vs LO Level

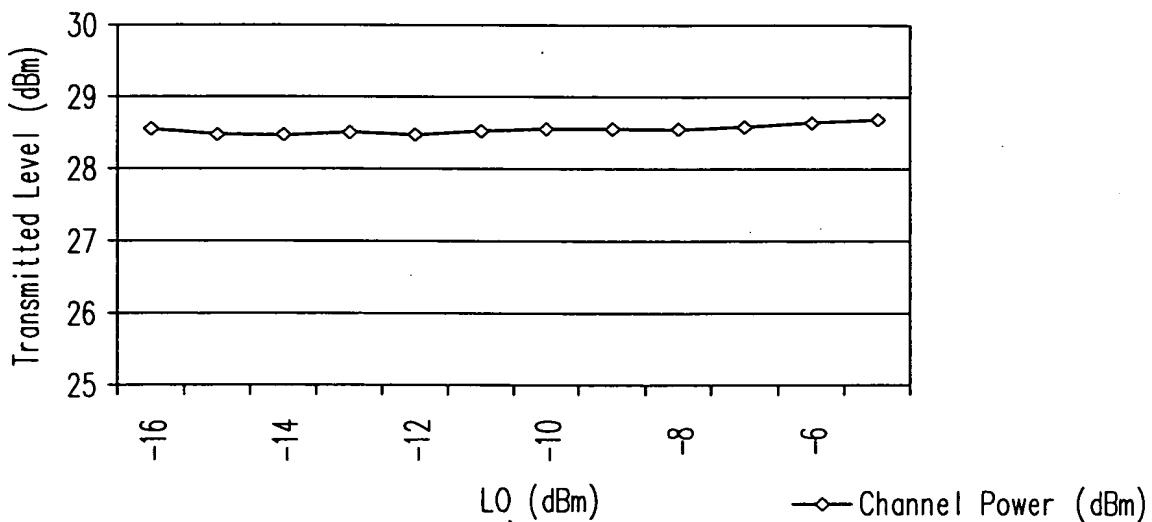


FIG.52V

CDMA IS-95A Mobile Transmitter@+3.3V  
ACPR vs LO Level

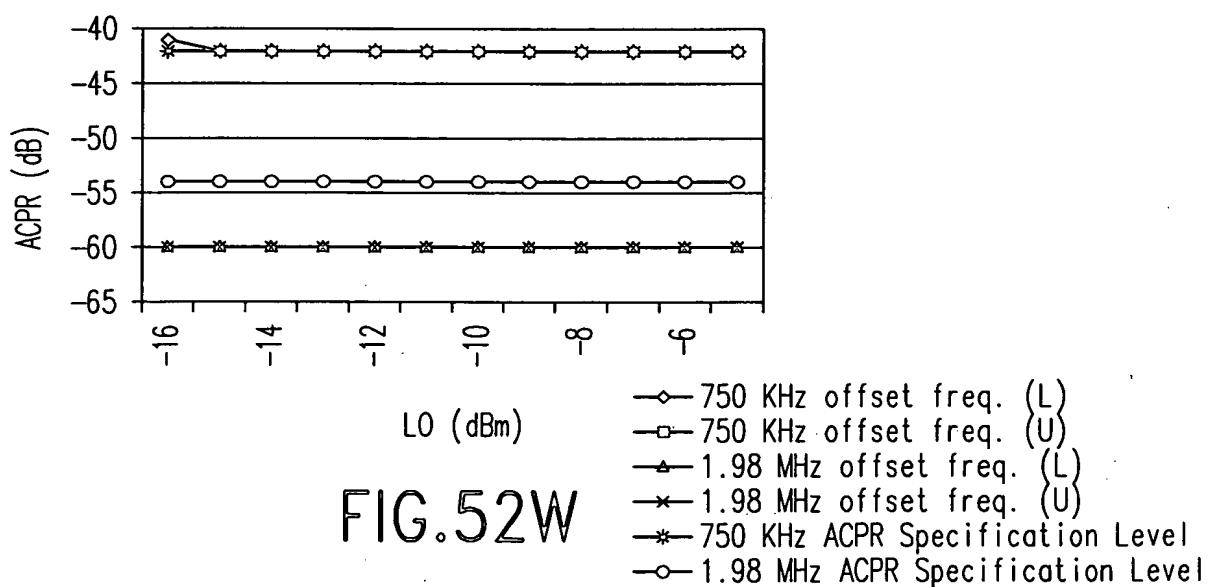
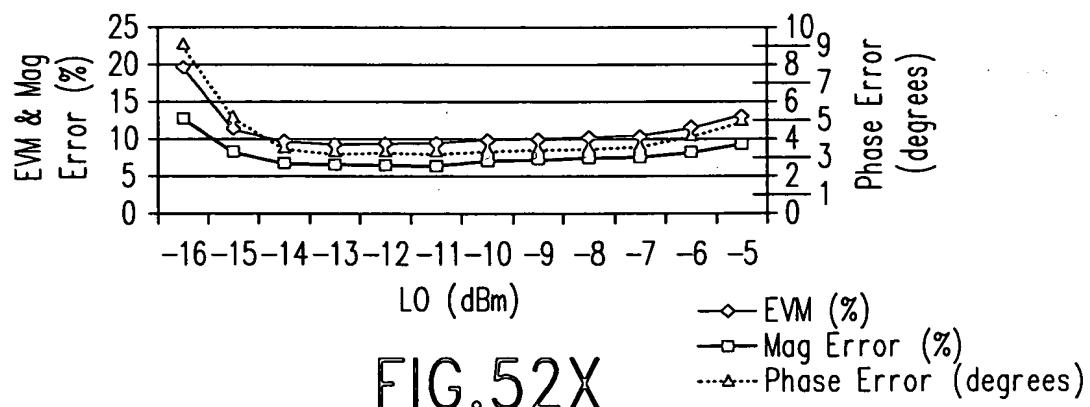
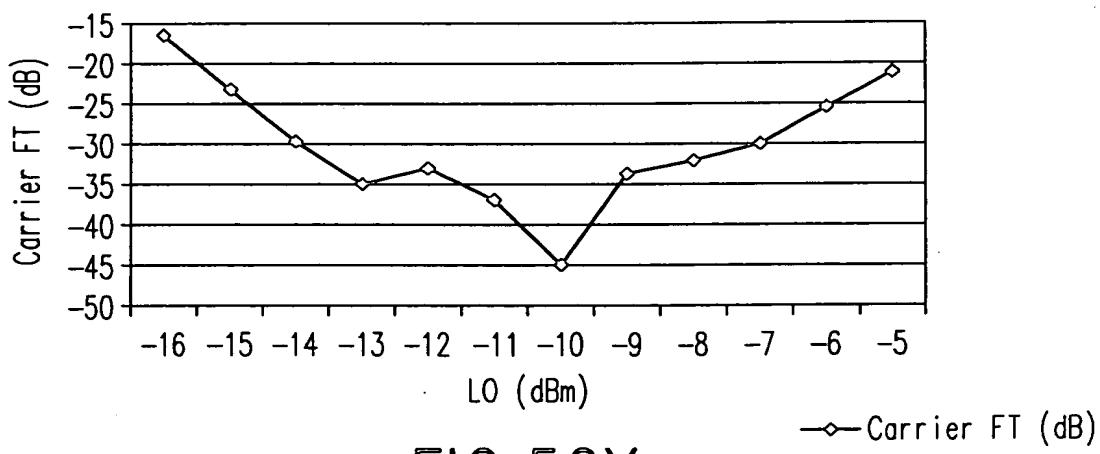


FIG.52W

CDMA IS-95A Mobile Transmitter@+3.3V  
EVM and Magnitude Error vs  
LO Level



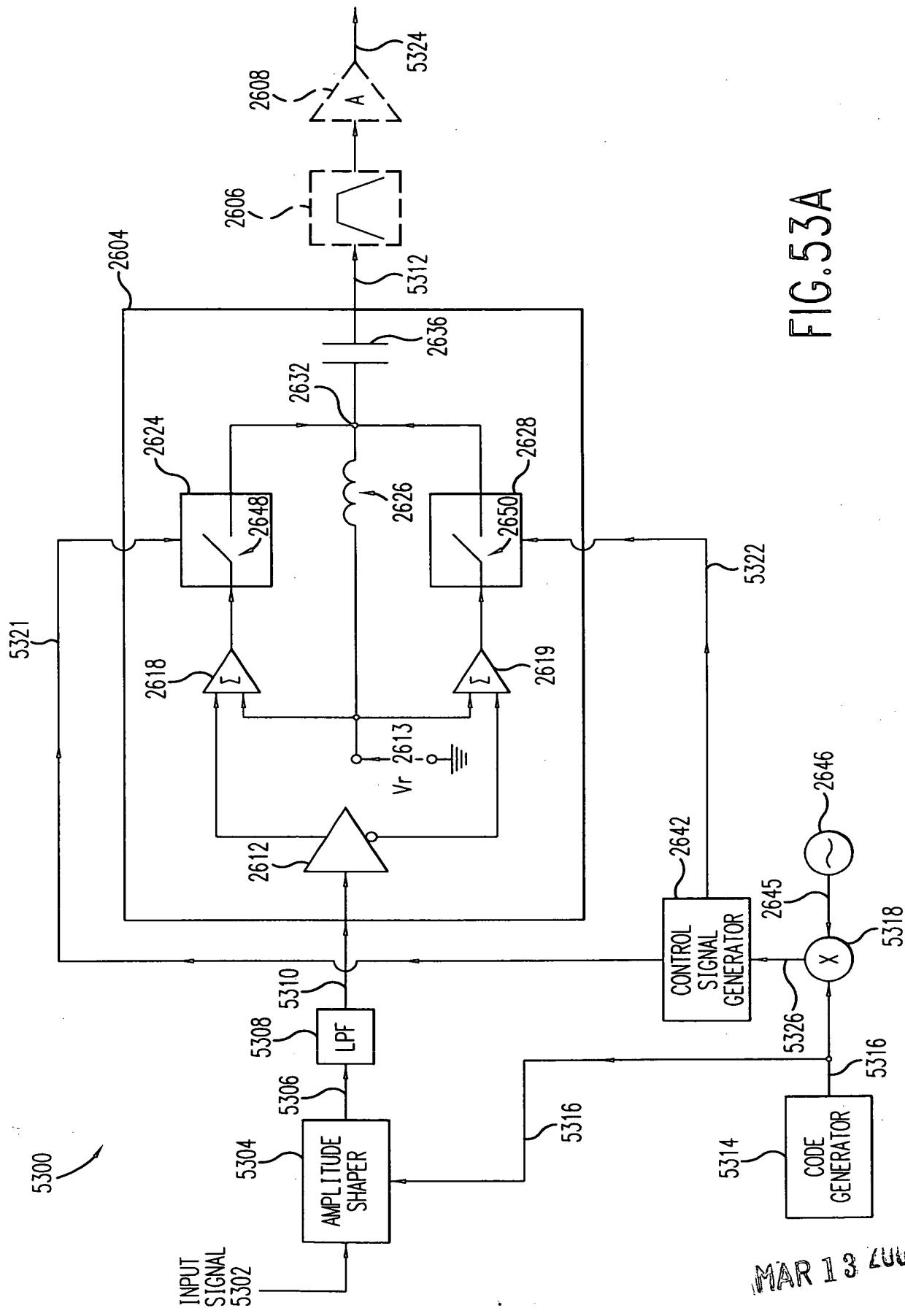
CDMA IS-95A Mobile Transmitter@+3.3V  
Carrier FT vs LO Level



QUANTITY	DESCRIPTION	VOLTAGE	TOTAL CURRENT	POWER
2	CORES	3.3	4mA	13.2mW
2	BASEBAND INTERFACE CIRCUITS WITH/BW LIMIT	3.3	6mA	21.8mW
1	CLOCK CIRCUIT	3.3	5mA	20.0mW
			SUB TOTAL	54.0mW

FIG. 52Z

MAR 13 2008



MAR 13 2000

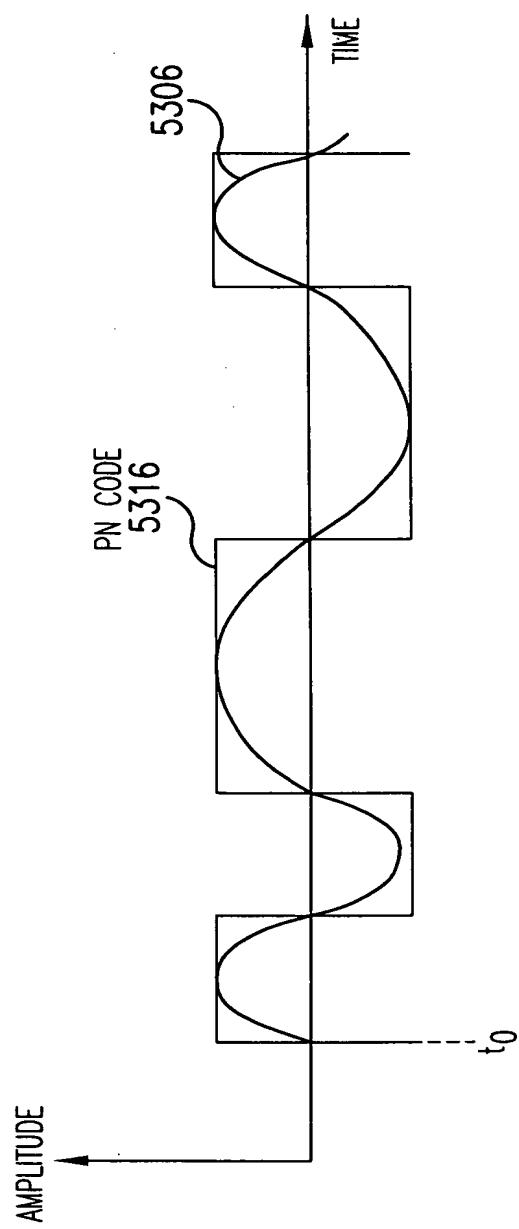


FIG. 53B

MAR 13 2006

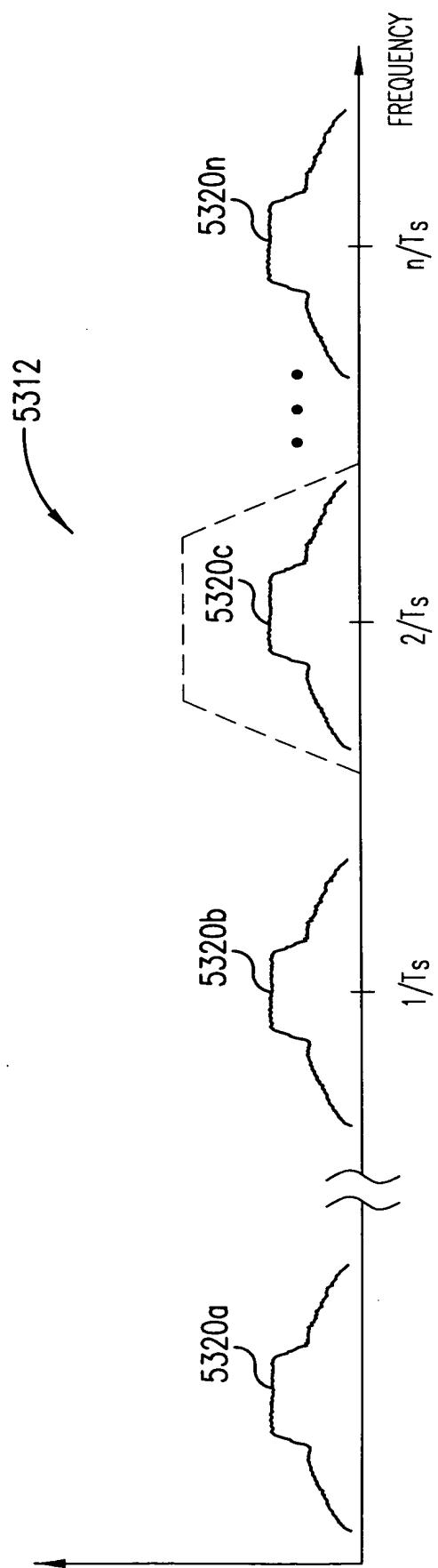


FIG. 53C

RECORDED

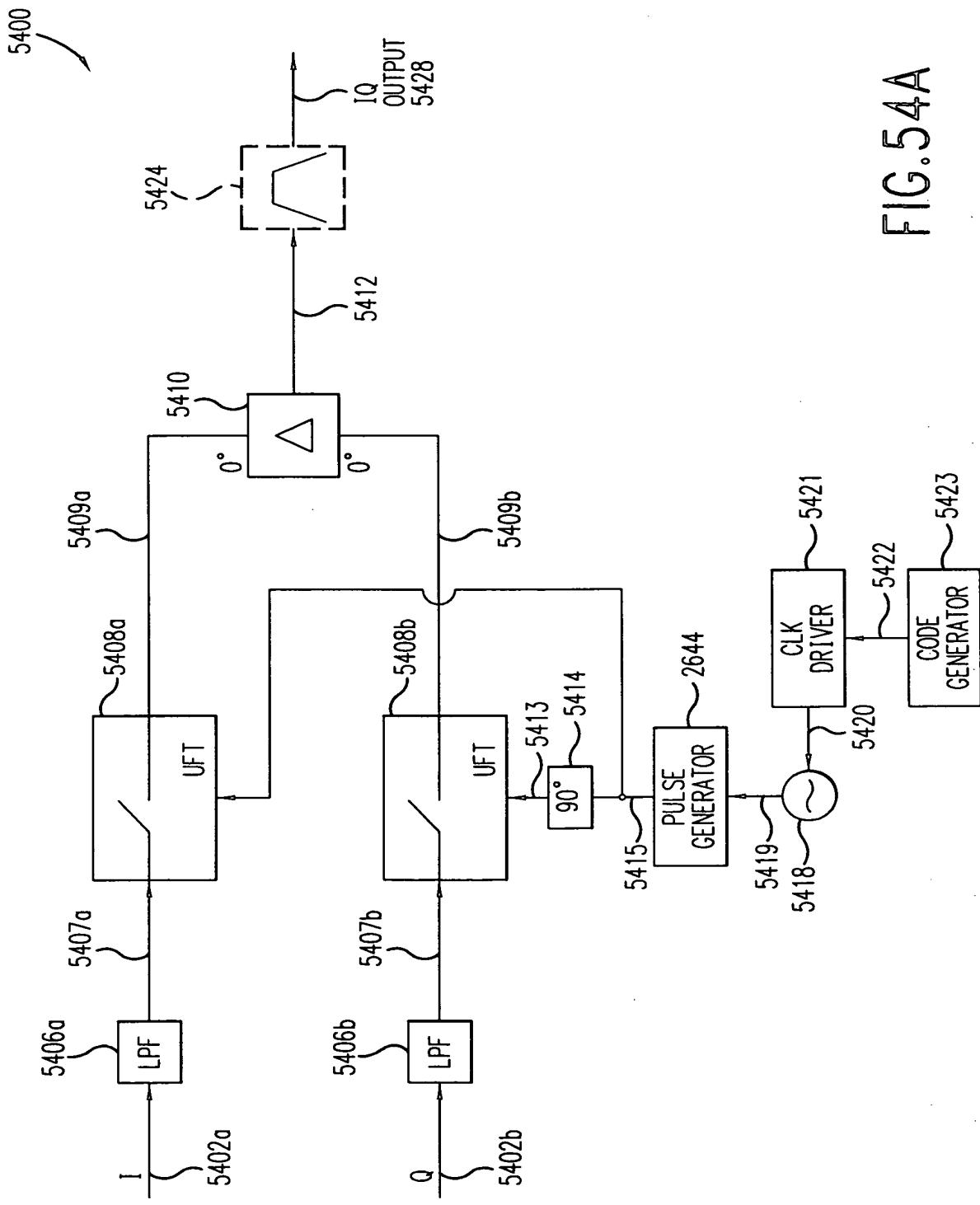


FIG. 54A

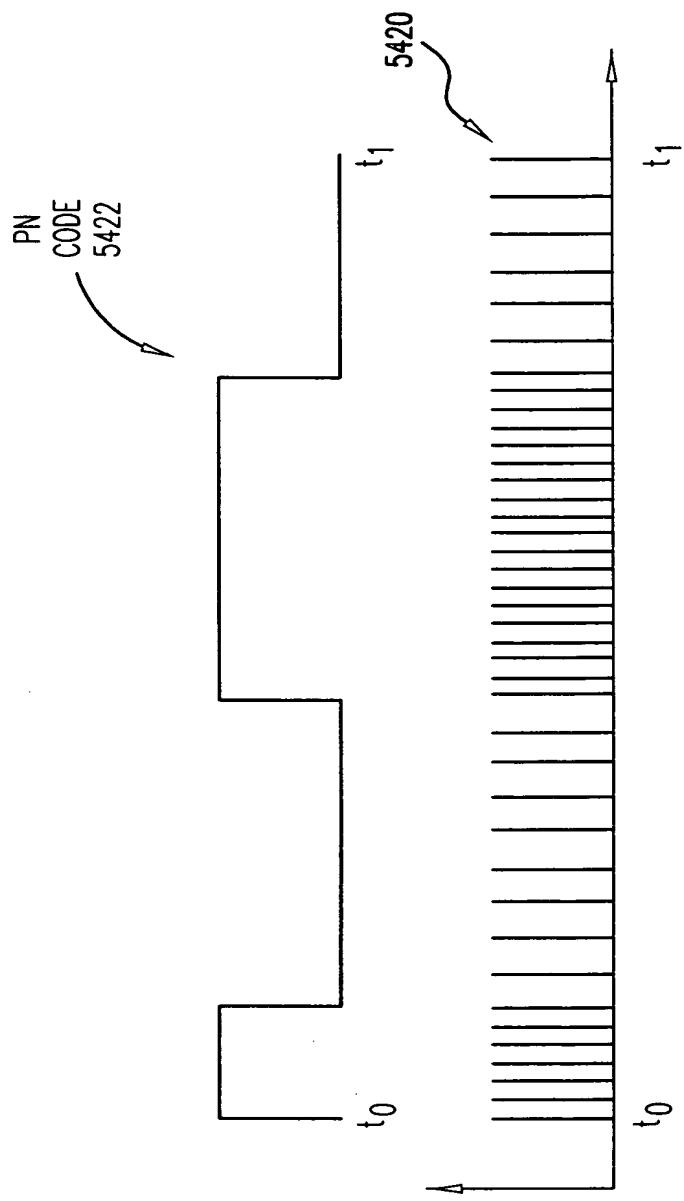
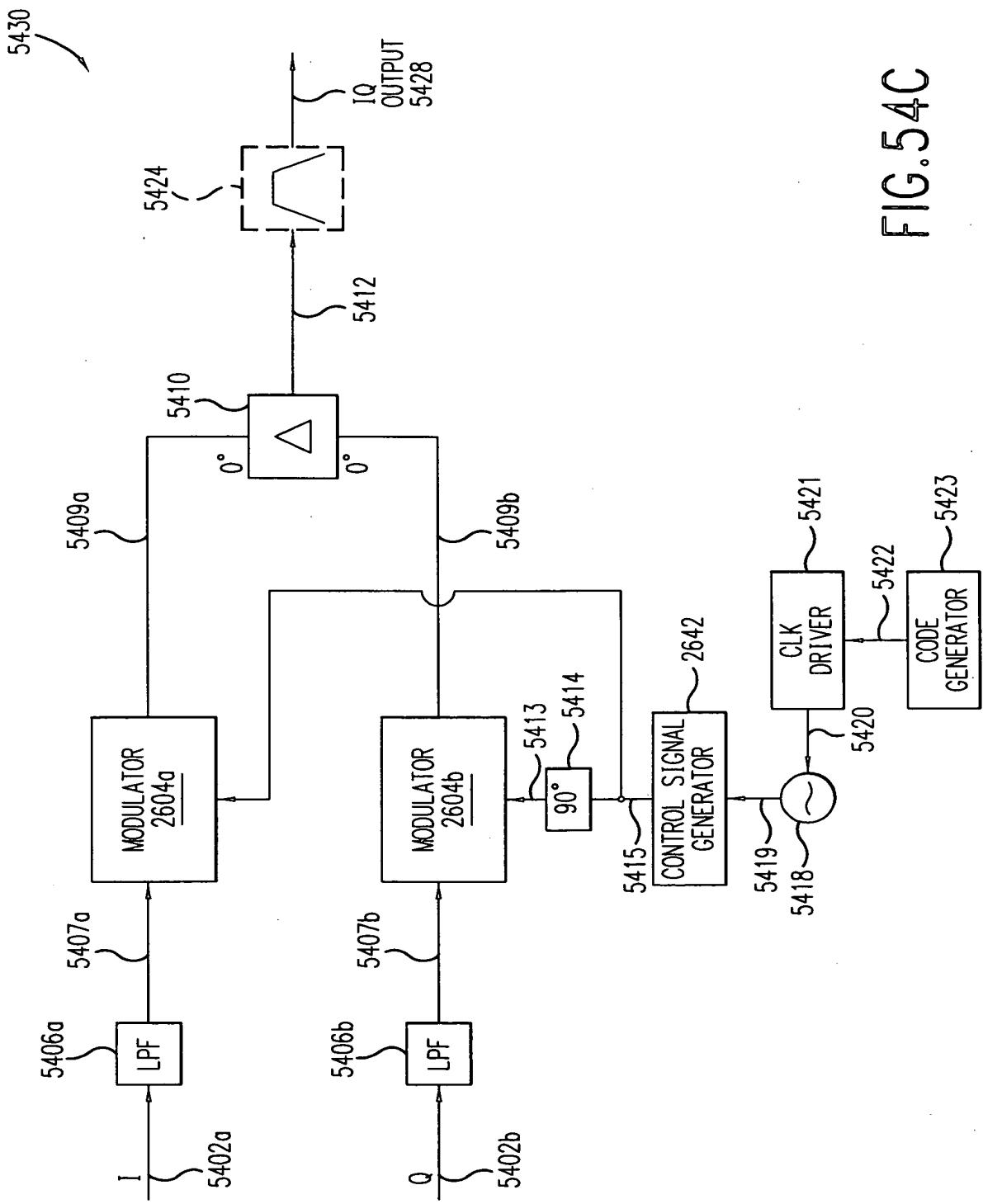


FIG. 54B



MAR 13 2006

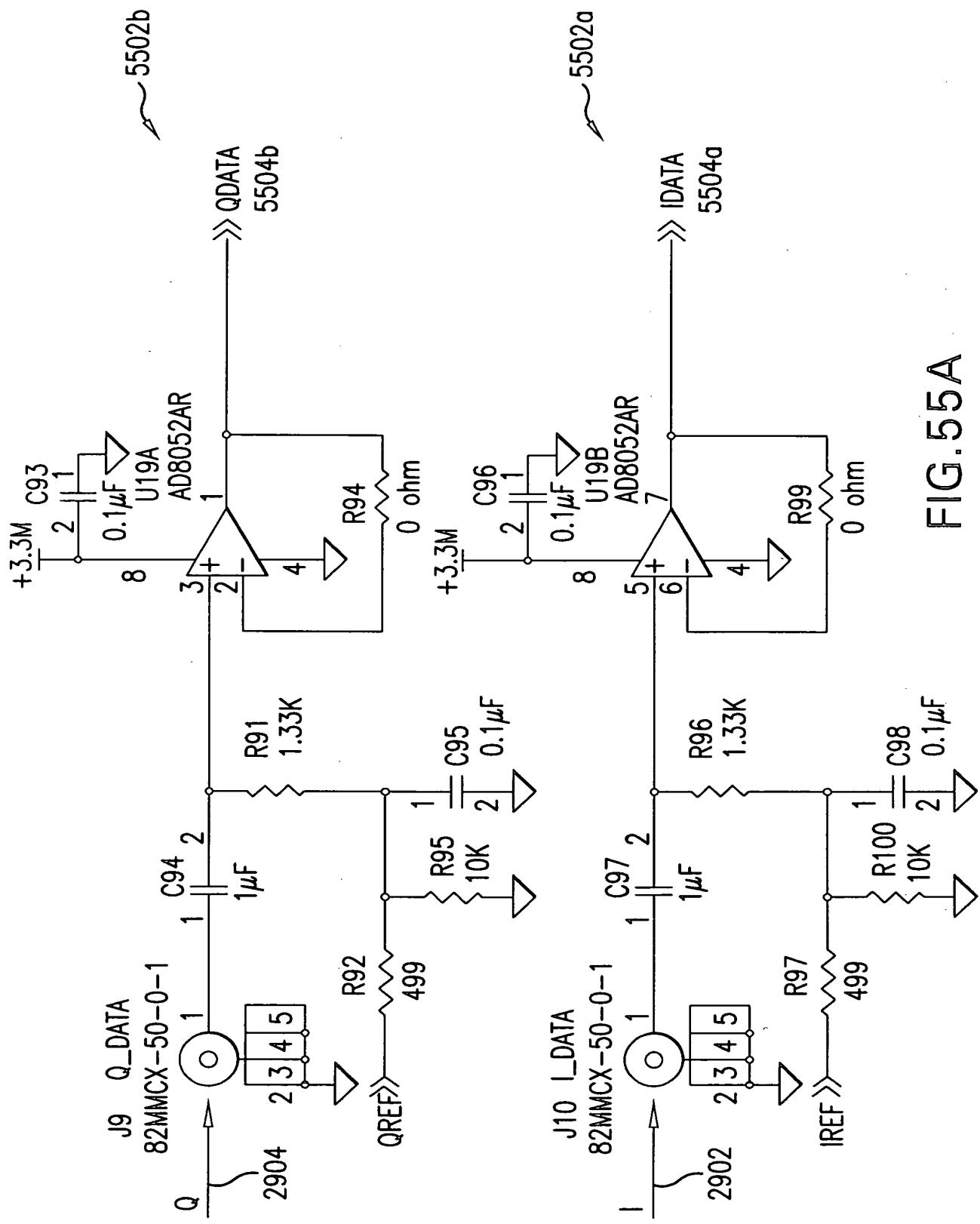
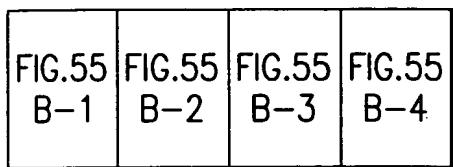
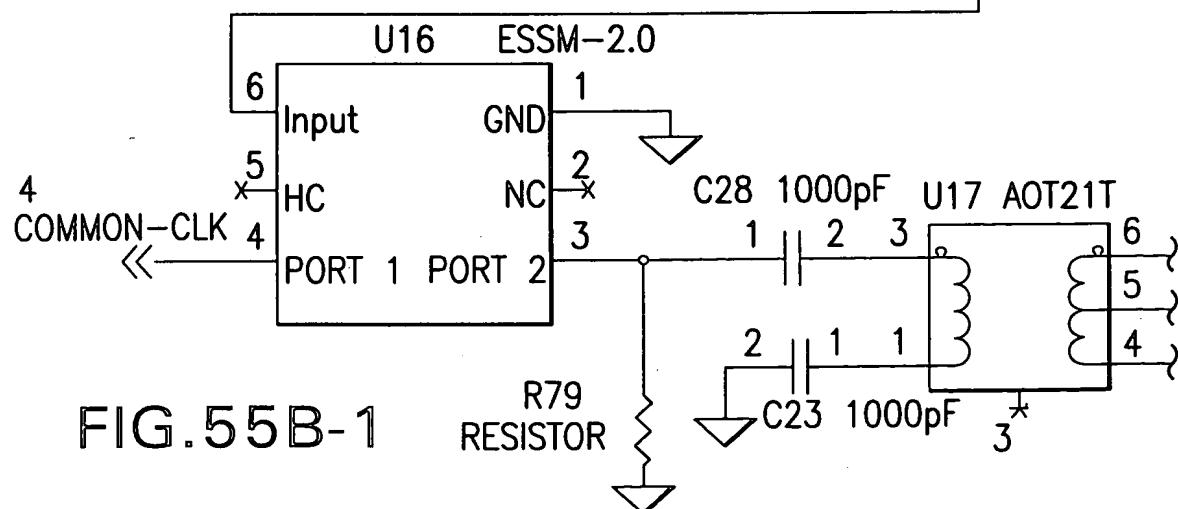
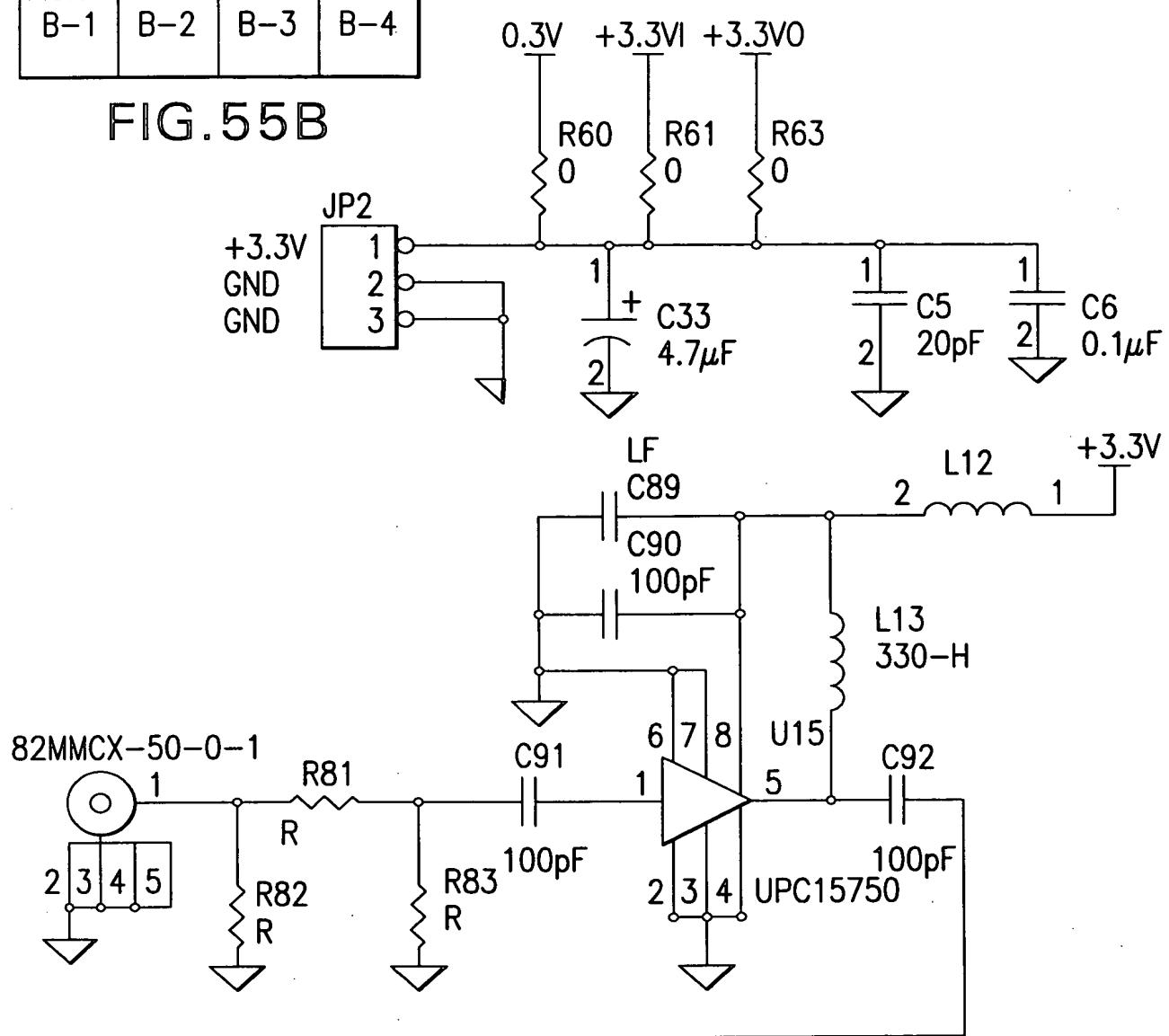


FIG. 55A

MAR 13 2006



**FIG.55B**



**FIG.55B-1**

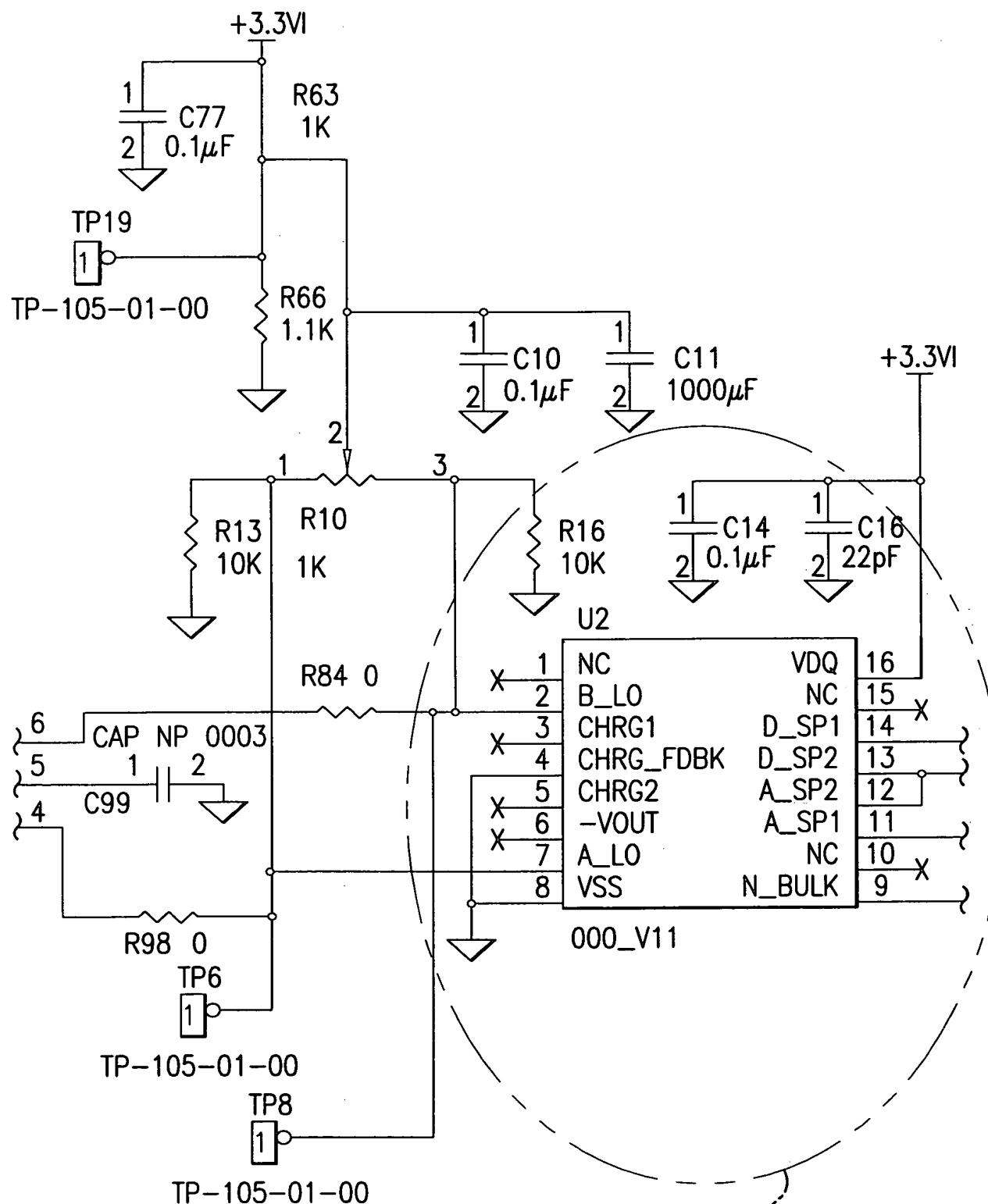
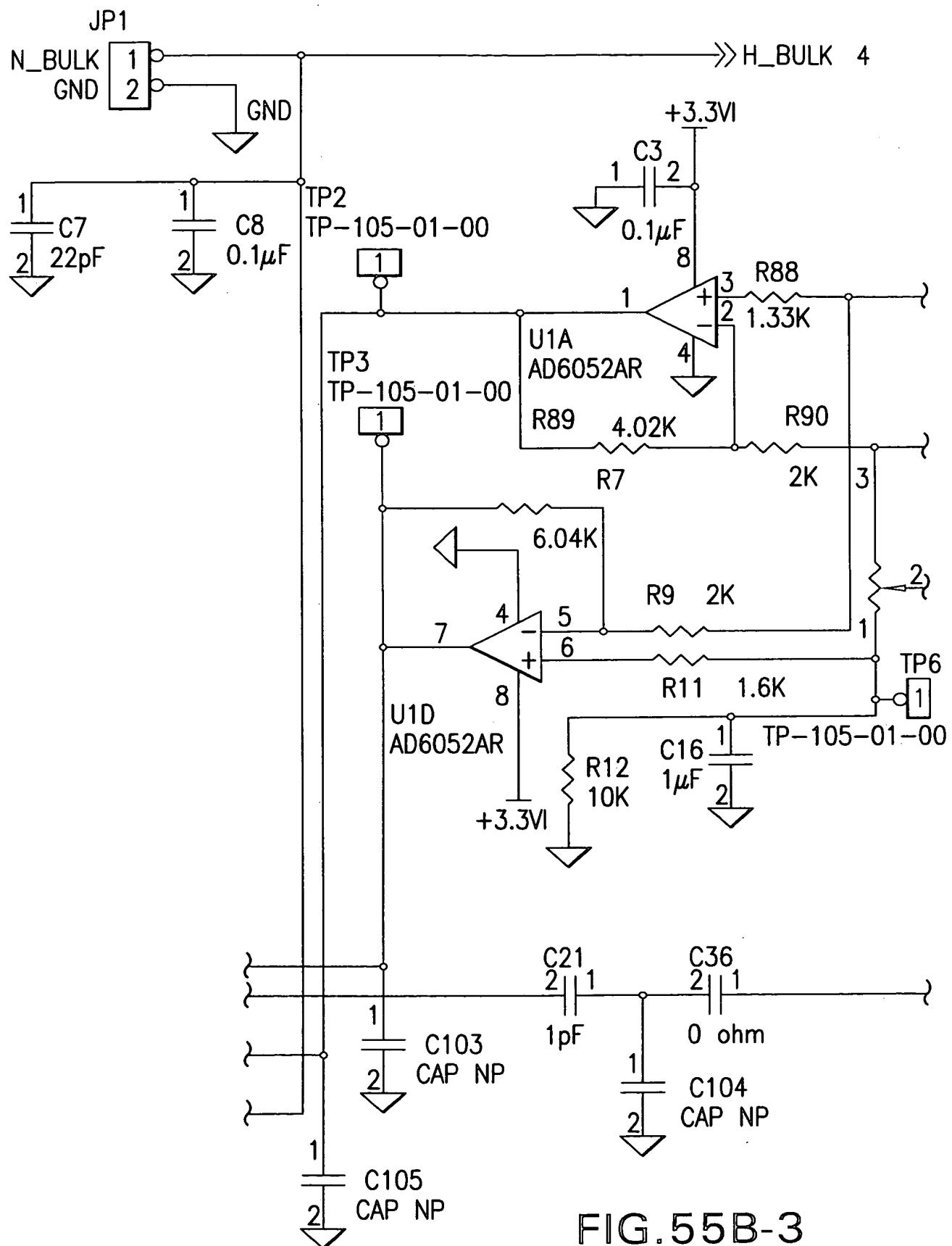


FIG.55B-2

MAR 13 2006



MAR 13 2006

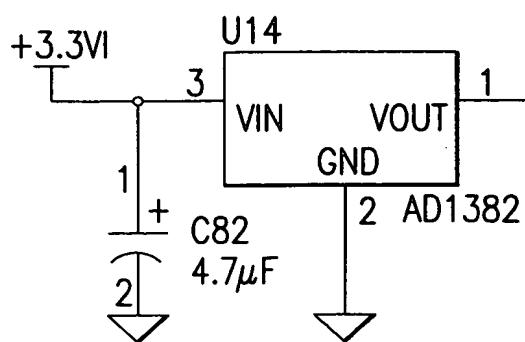
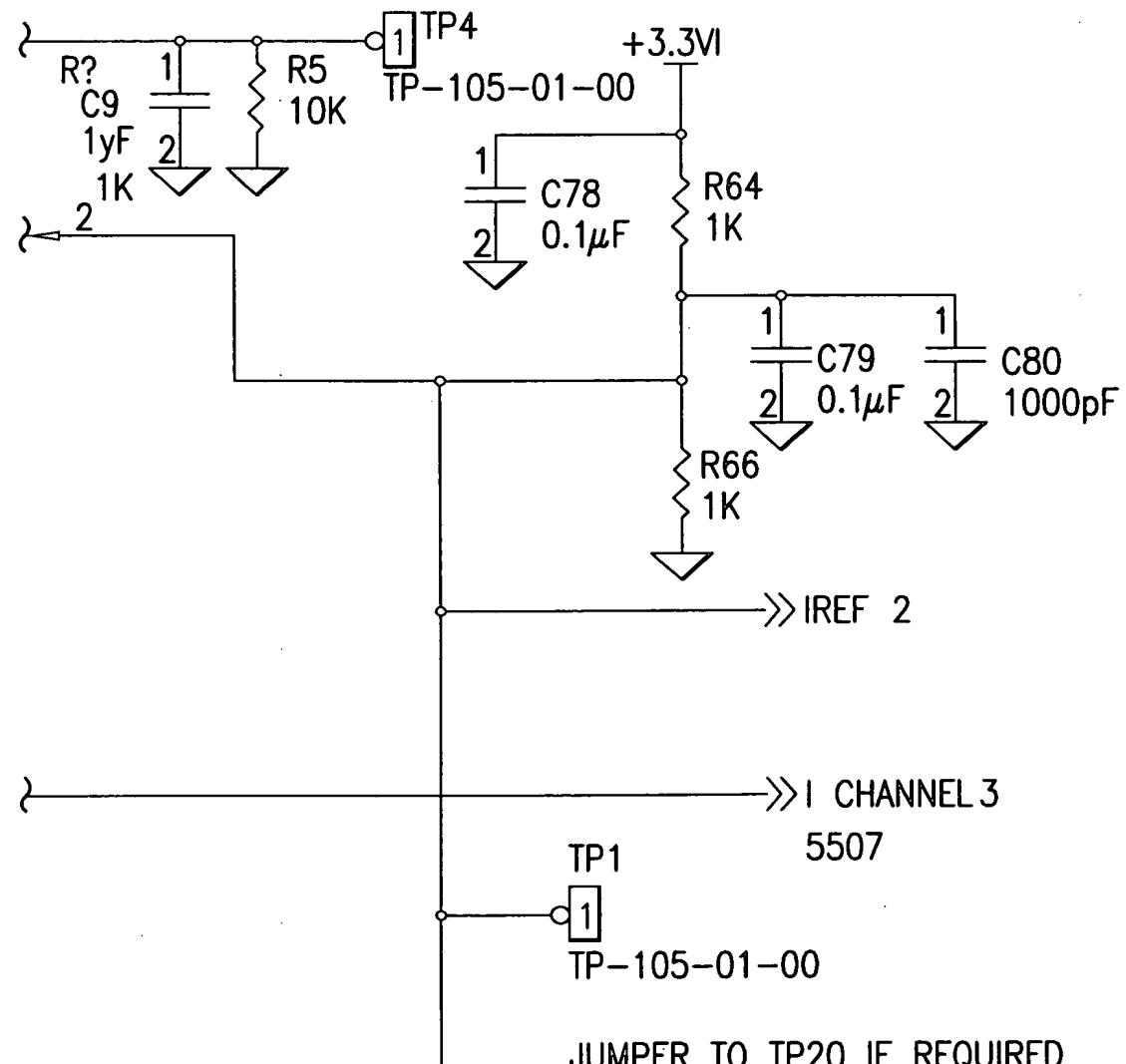
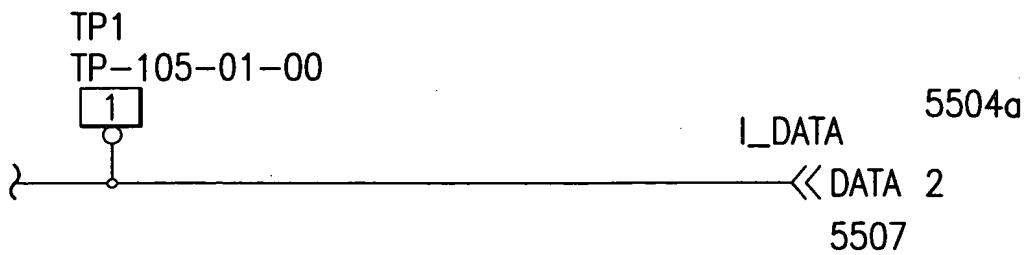


FIG.55B-4

MAR 13 2000

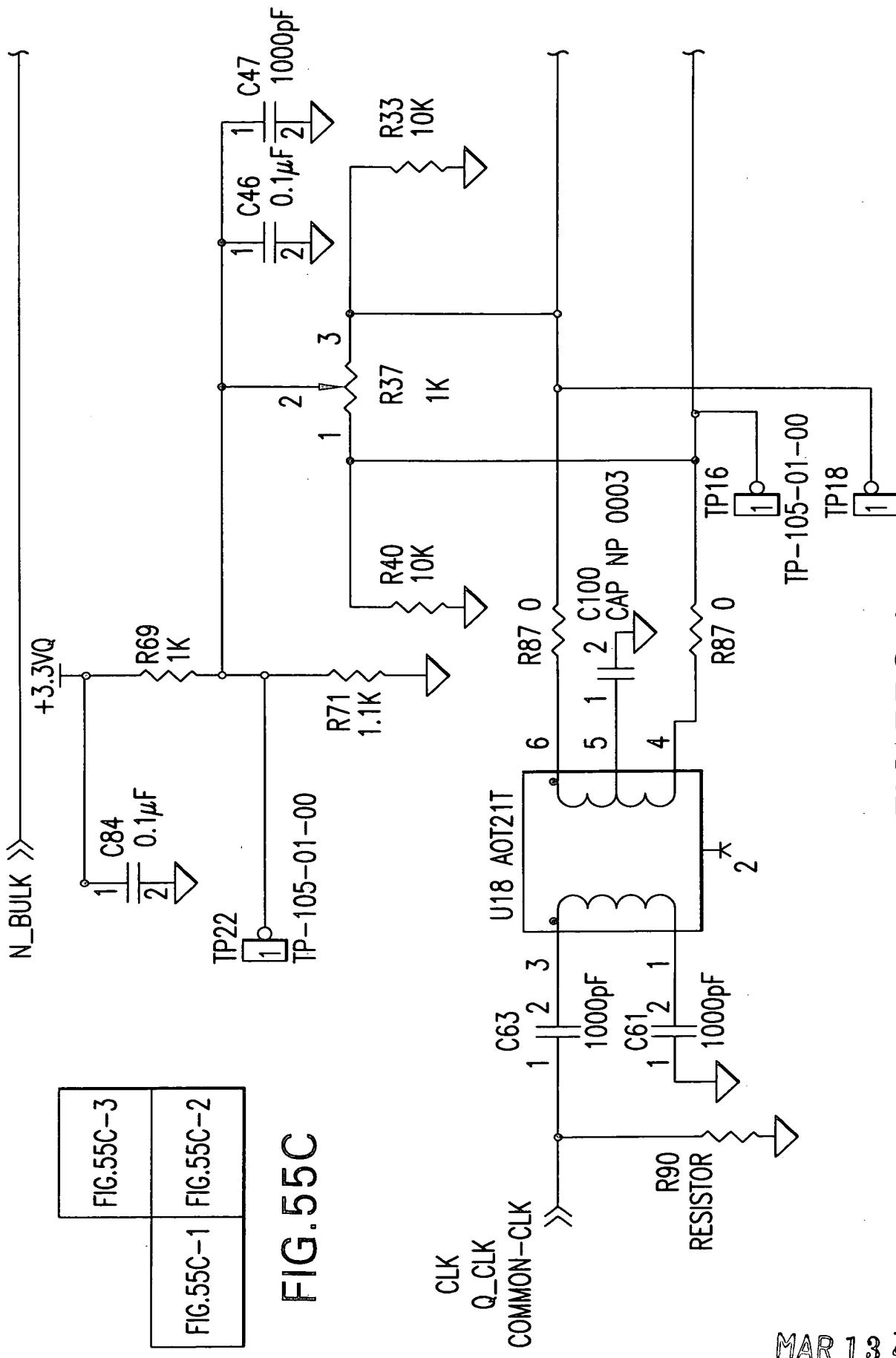


FIG. 55C-1 TP-105-01-00

MAR 13 2006

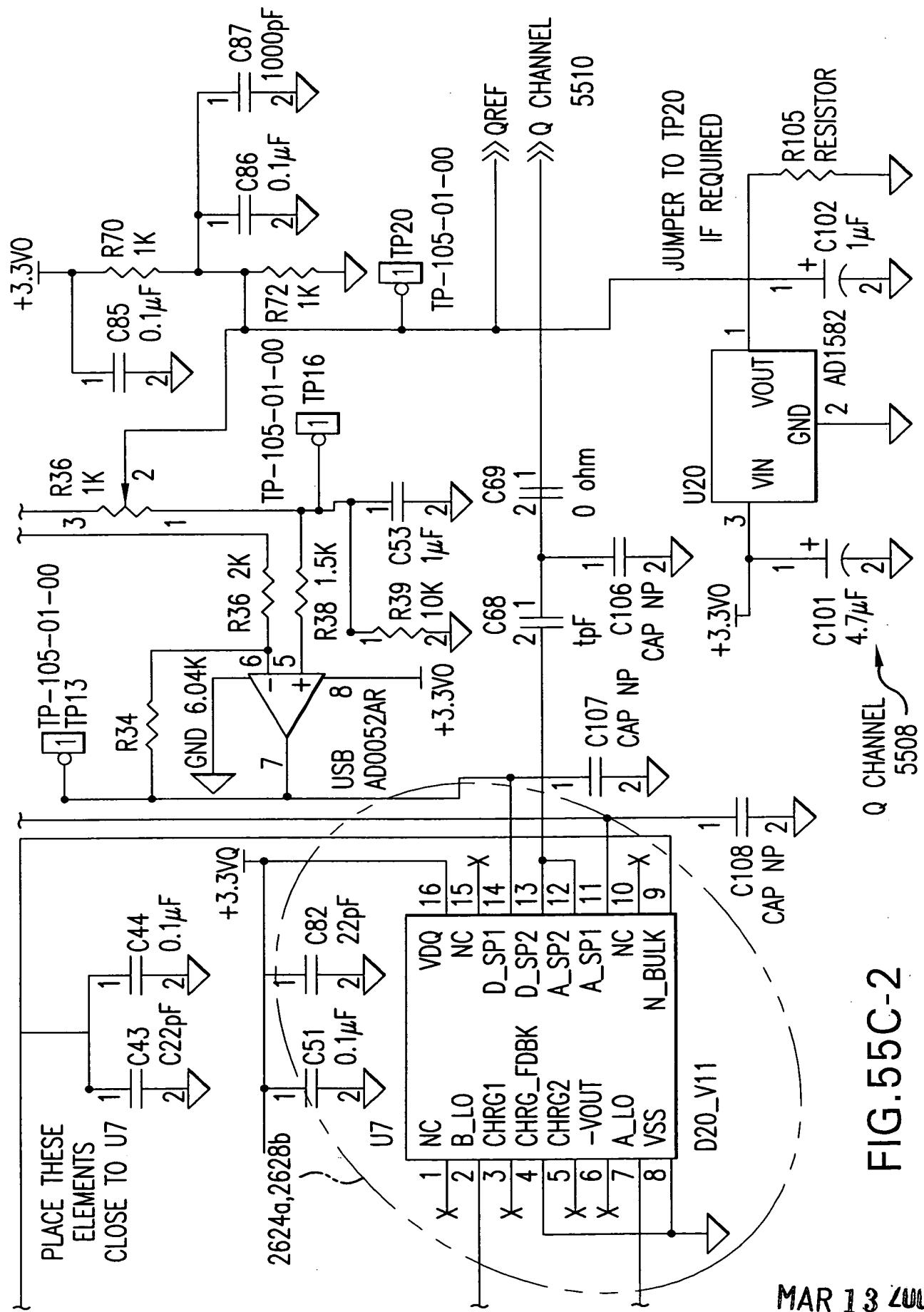


FIG. 55C-2

MAR 13 2006

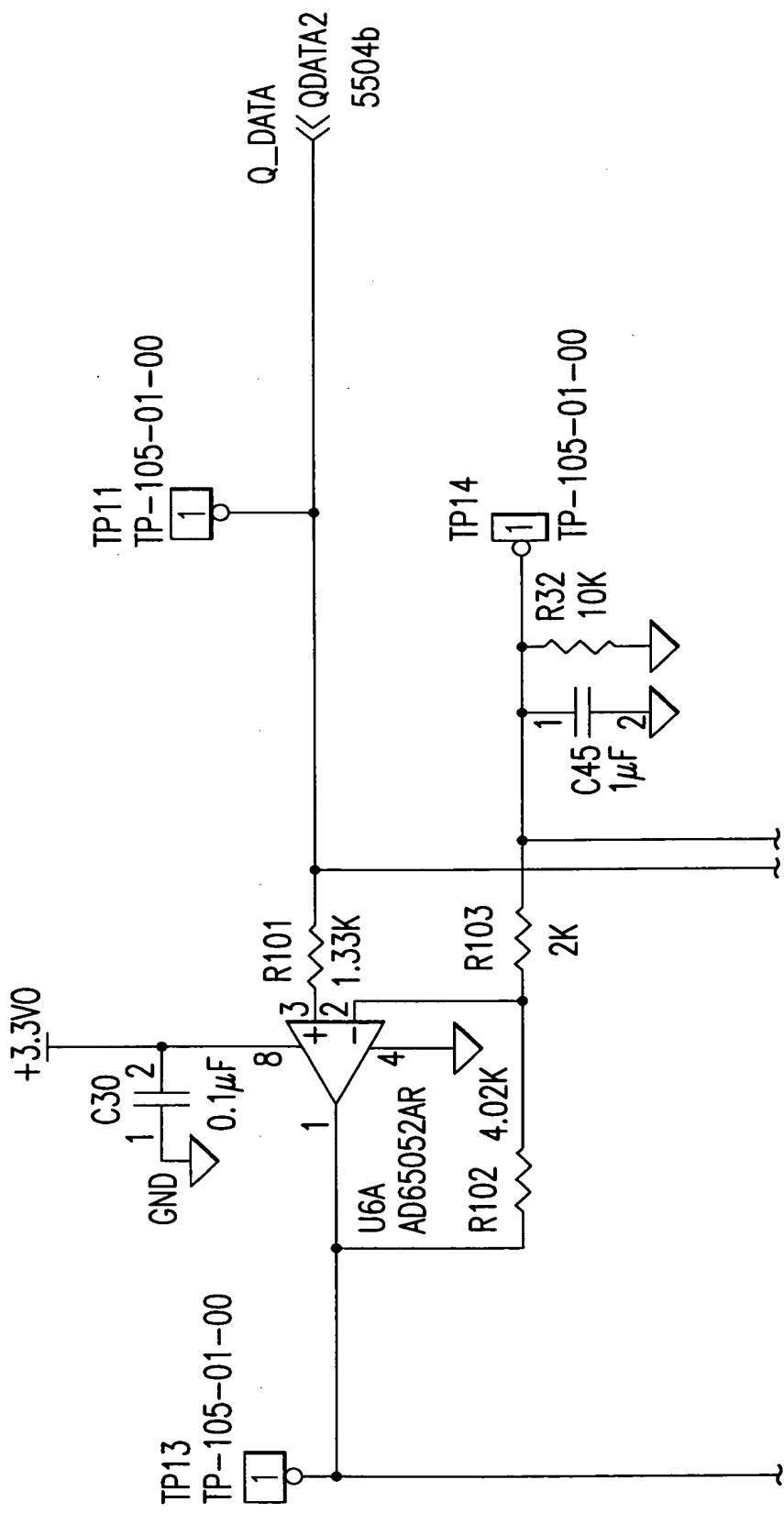
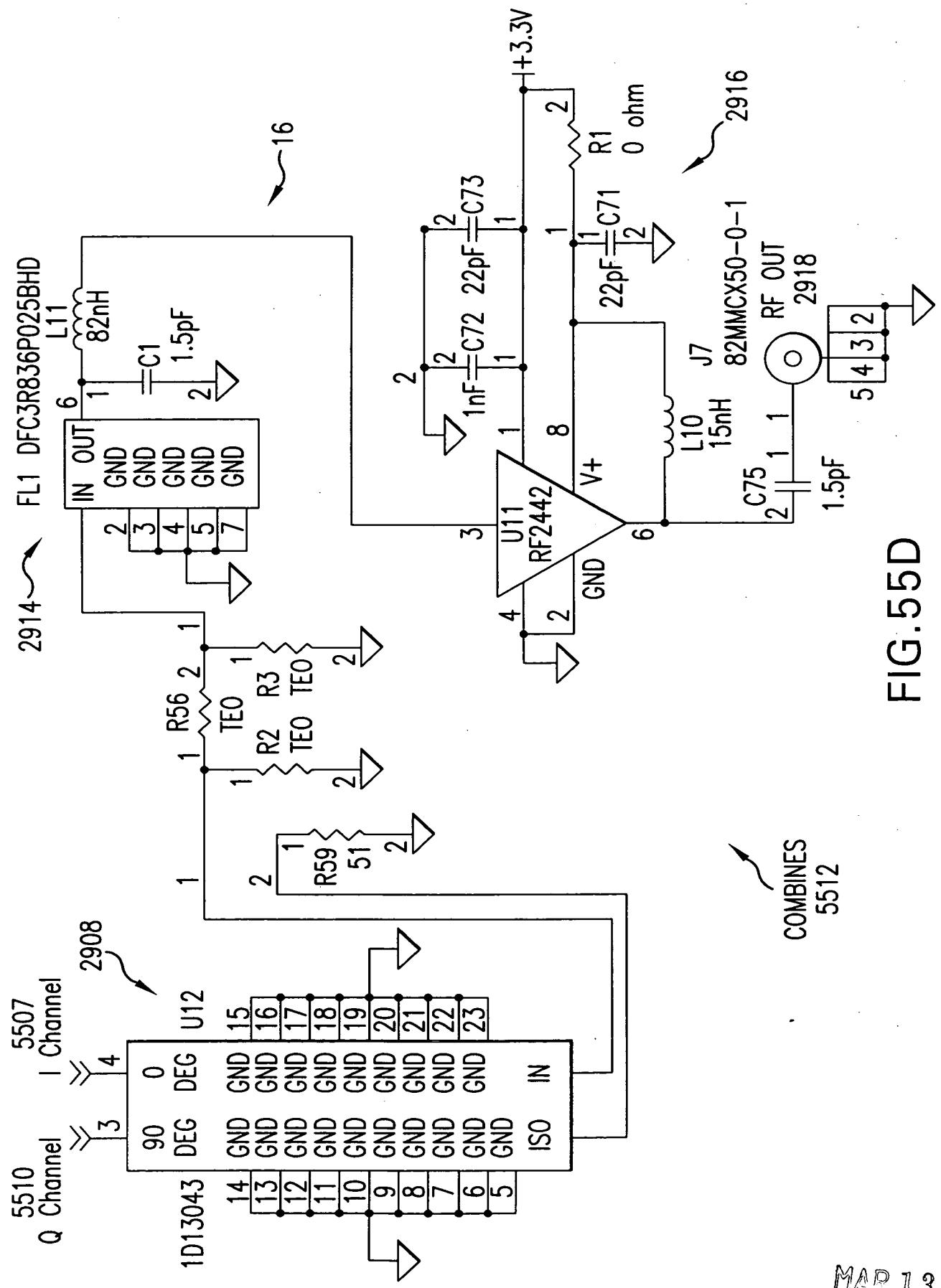
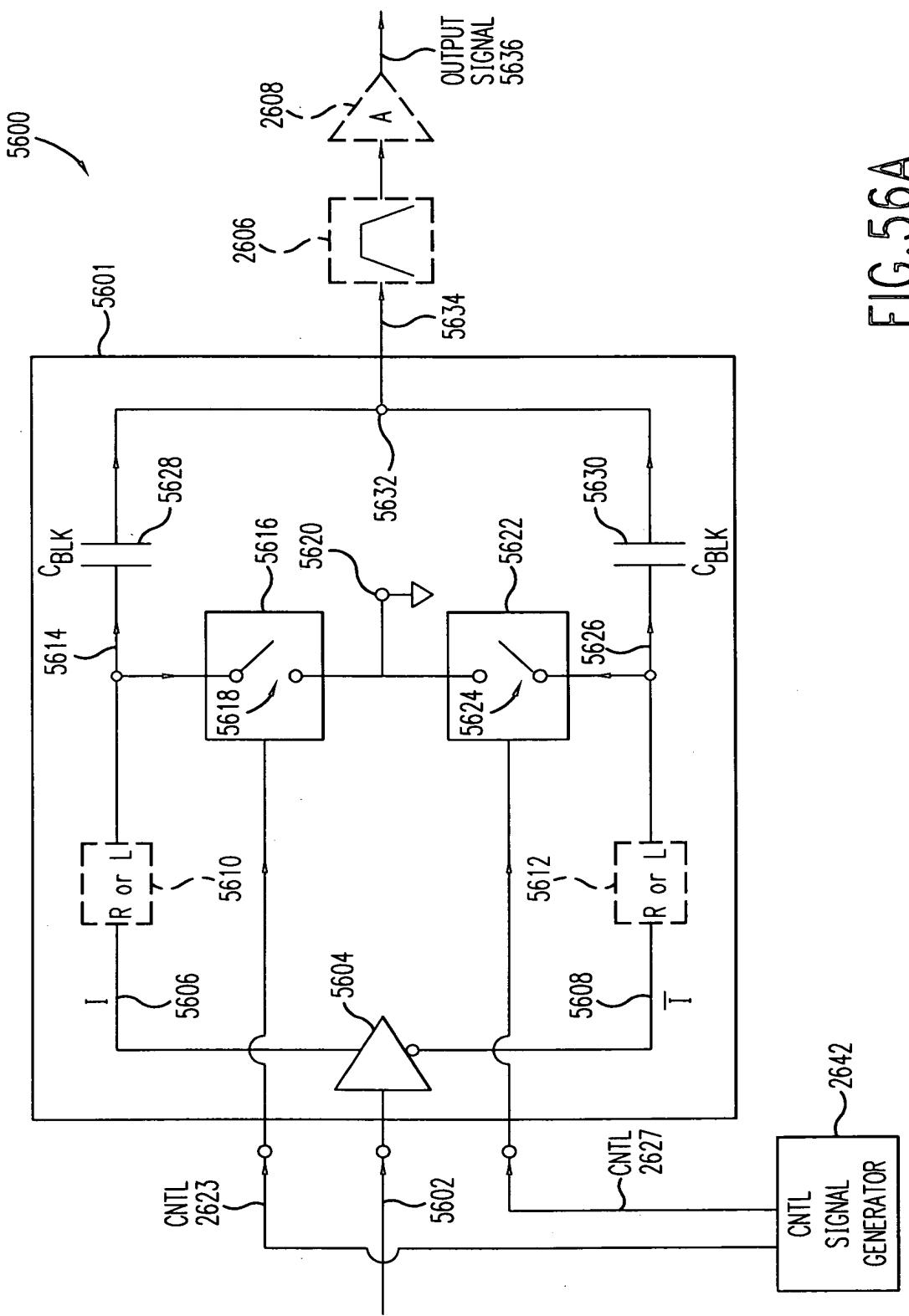


FIG. 55C-3

MAR 13 2006



MAP 13 2006



MAR 13 2006

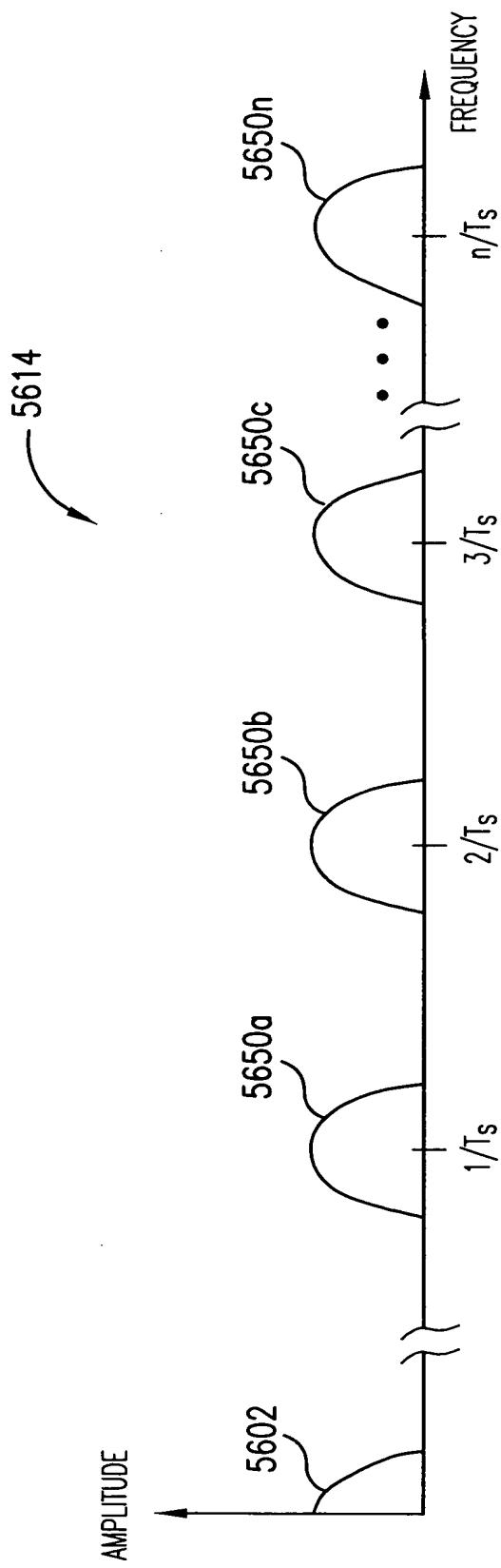


FIG. 56B

MAR 13 2006

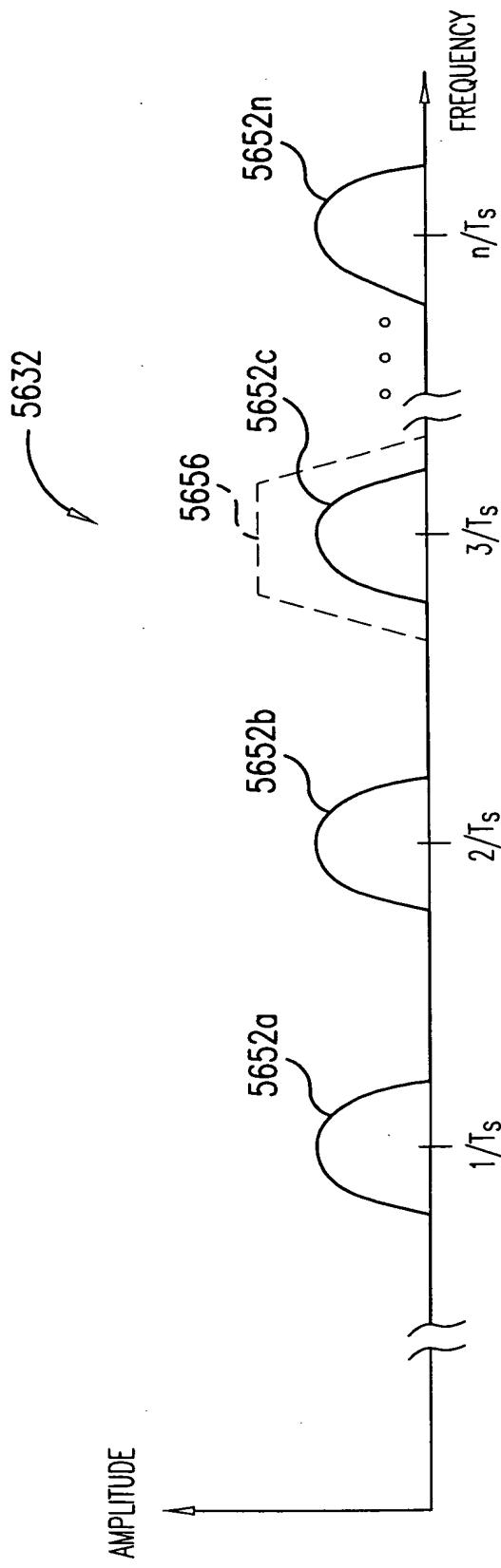
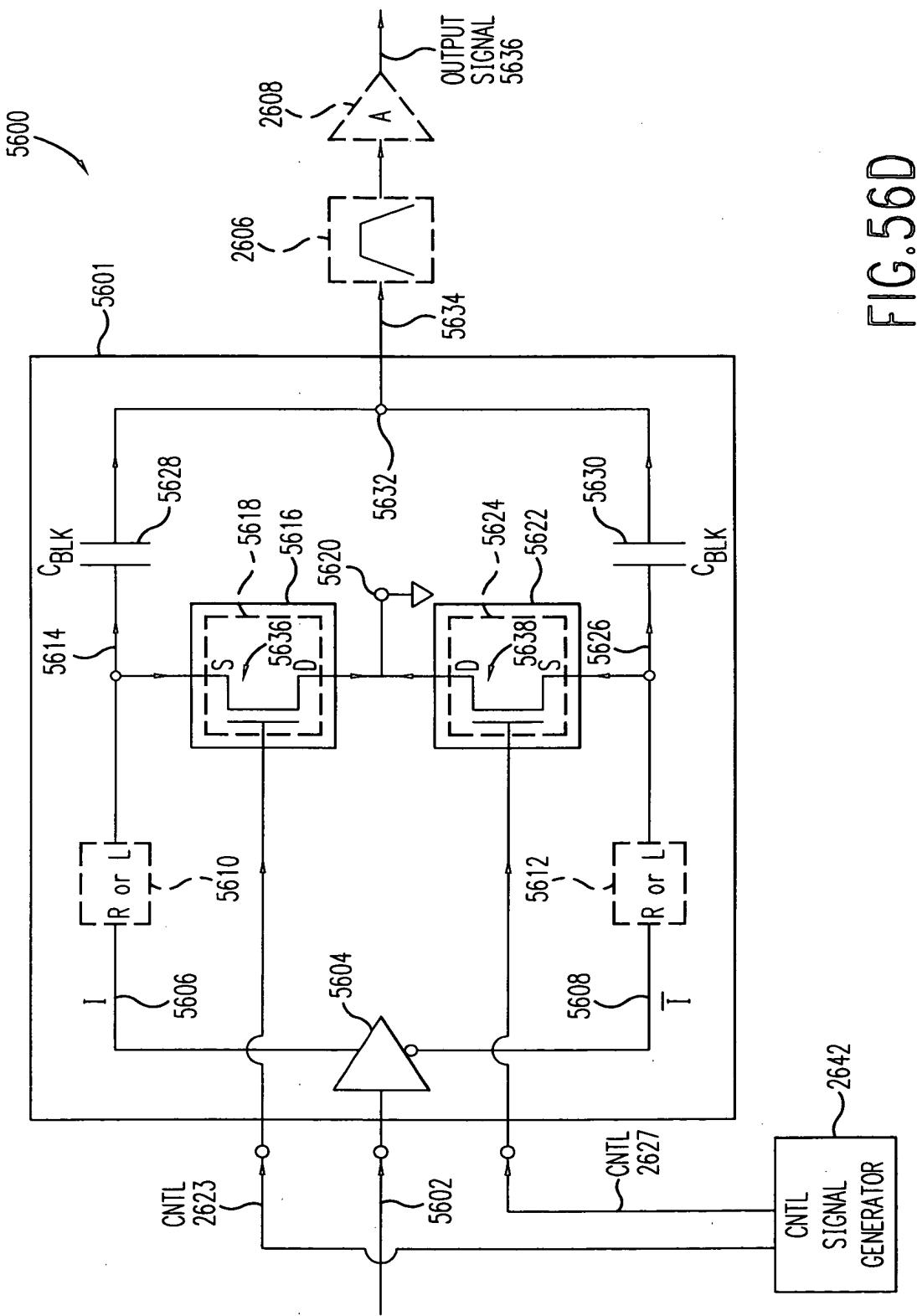


FIG. 56C

MAR 13 2006

MAR 13 2006



MAR 13 1996

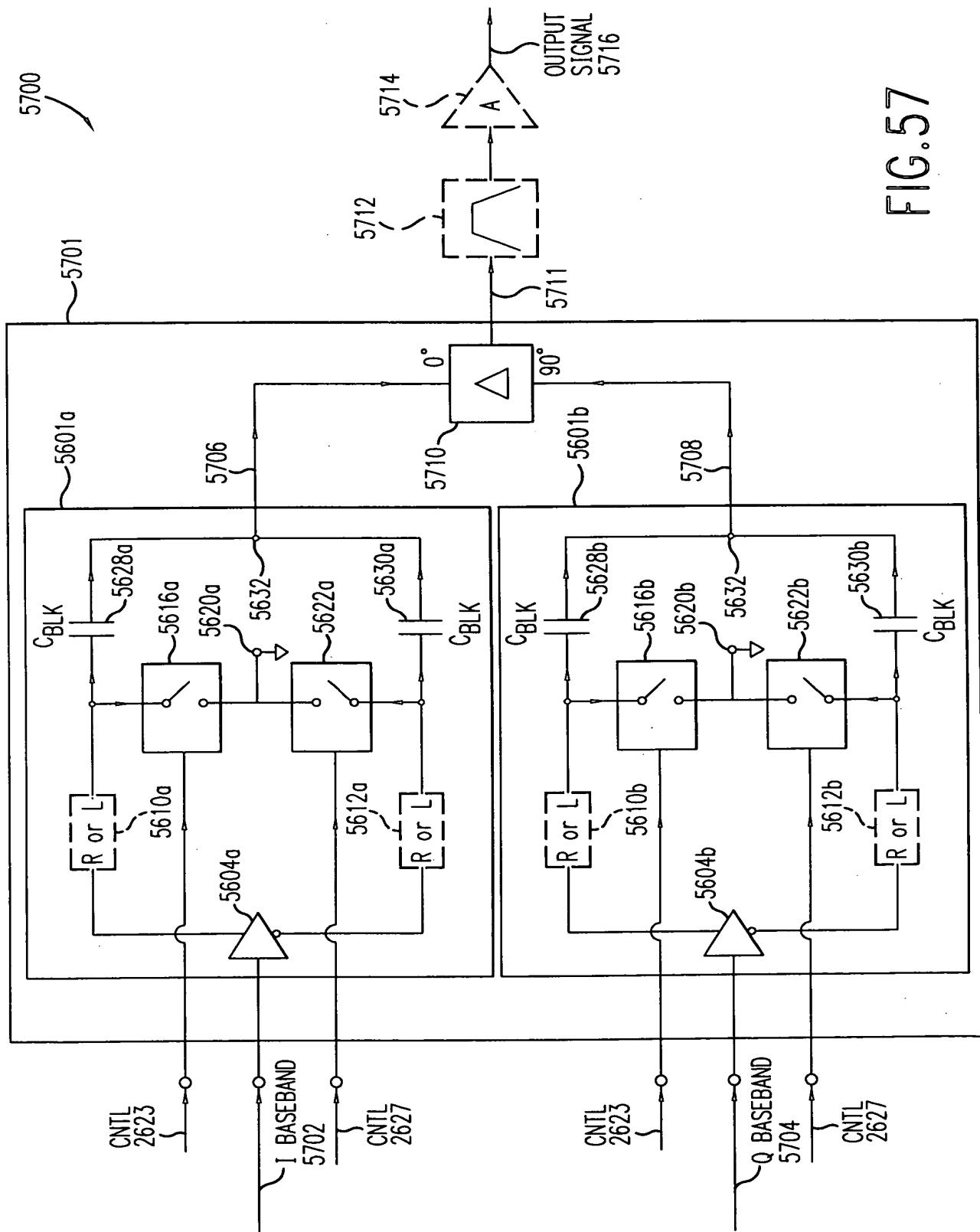


FIG. 57

2006

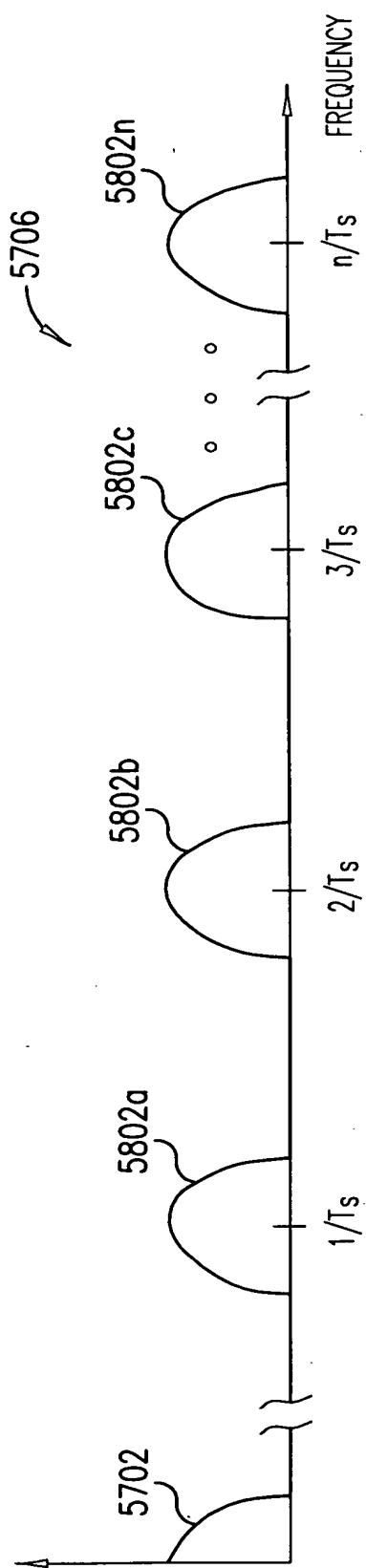


FIG. 58A

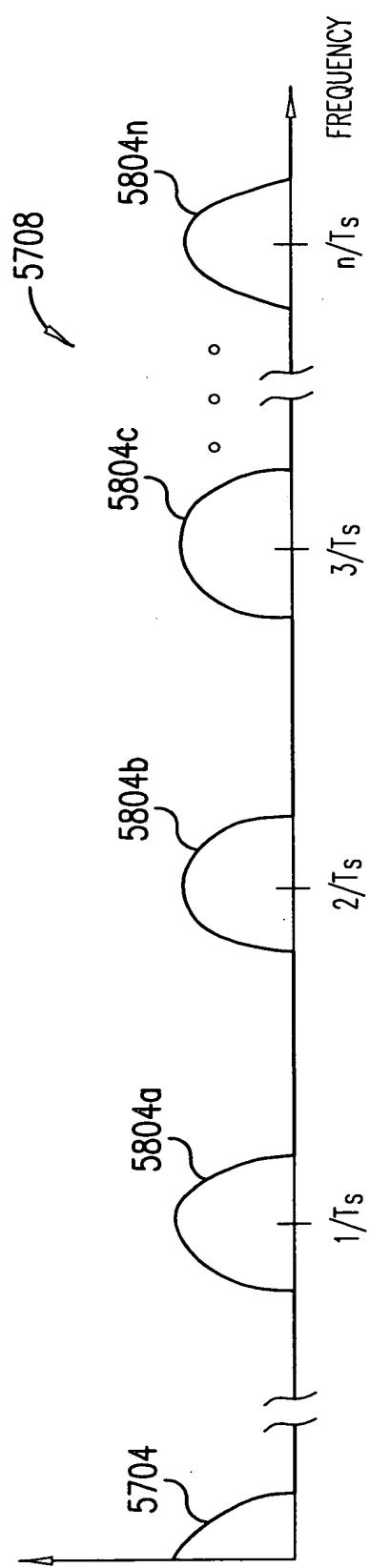


FIG. 58B

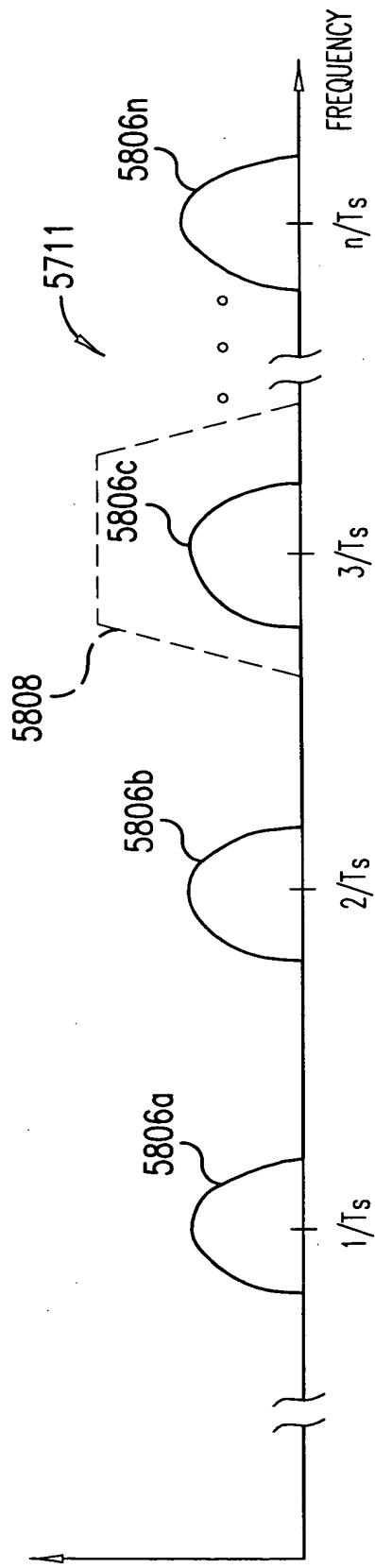
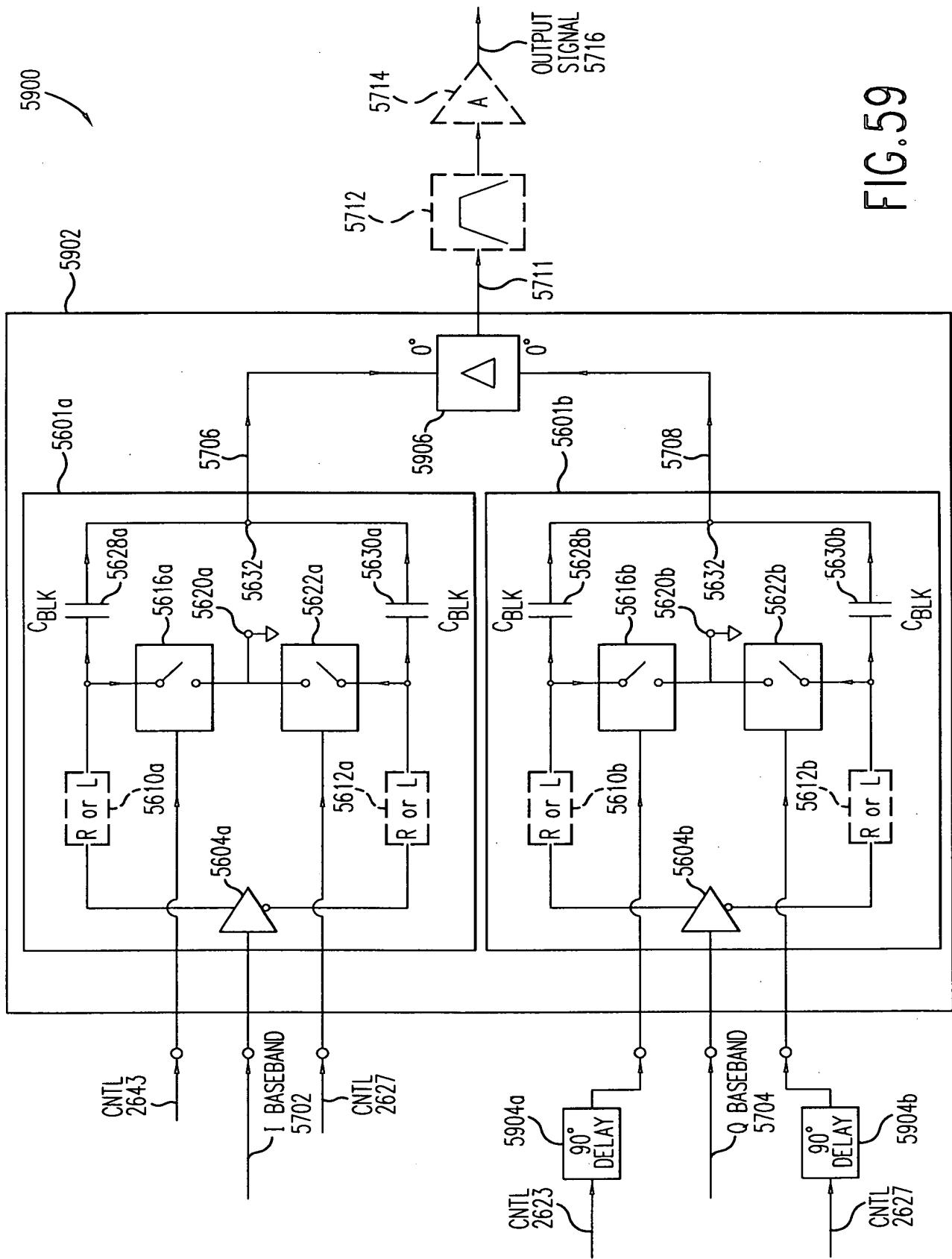


FIG. 58C



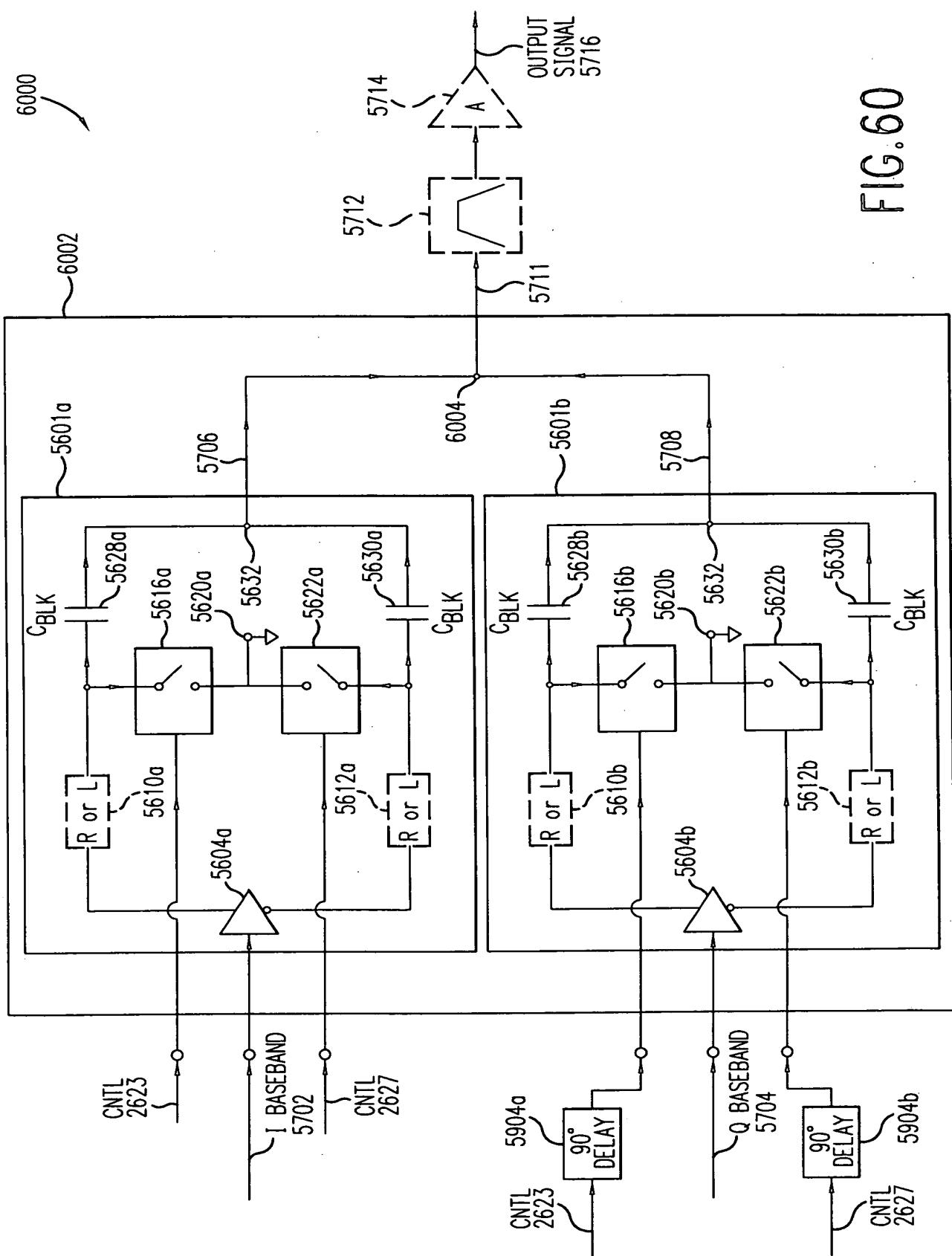
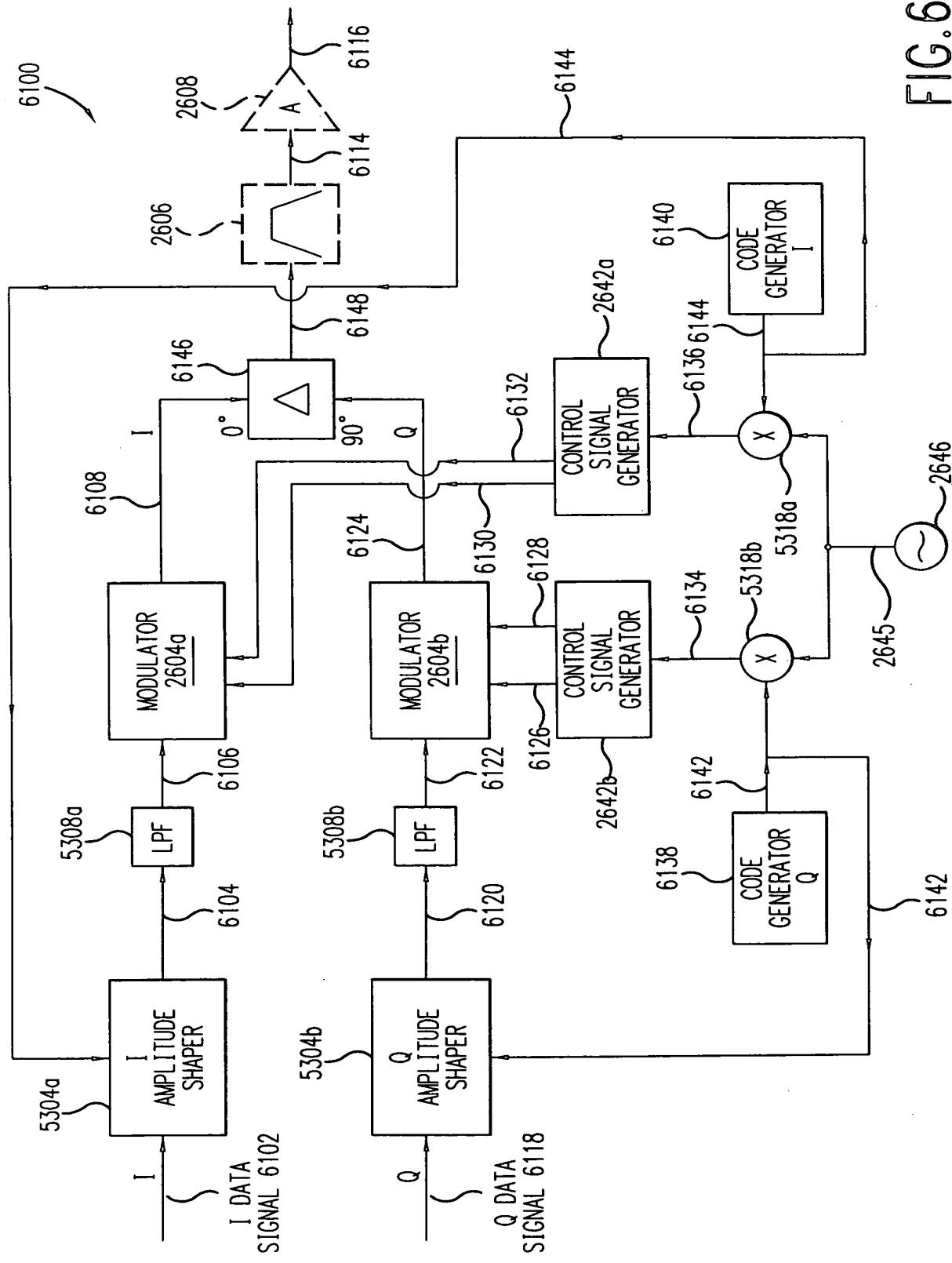


FIG. 60

FIG. 61



MAR 13 2006

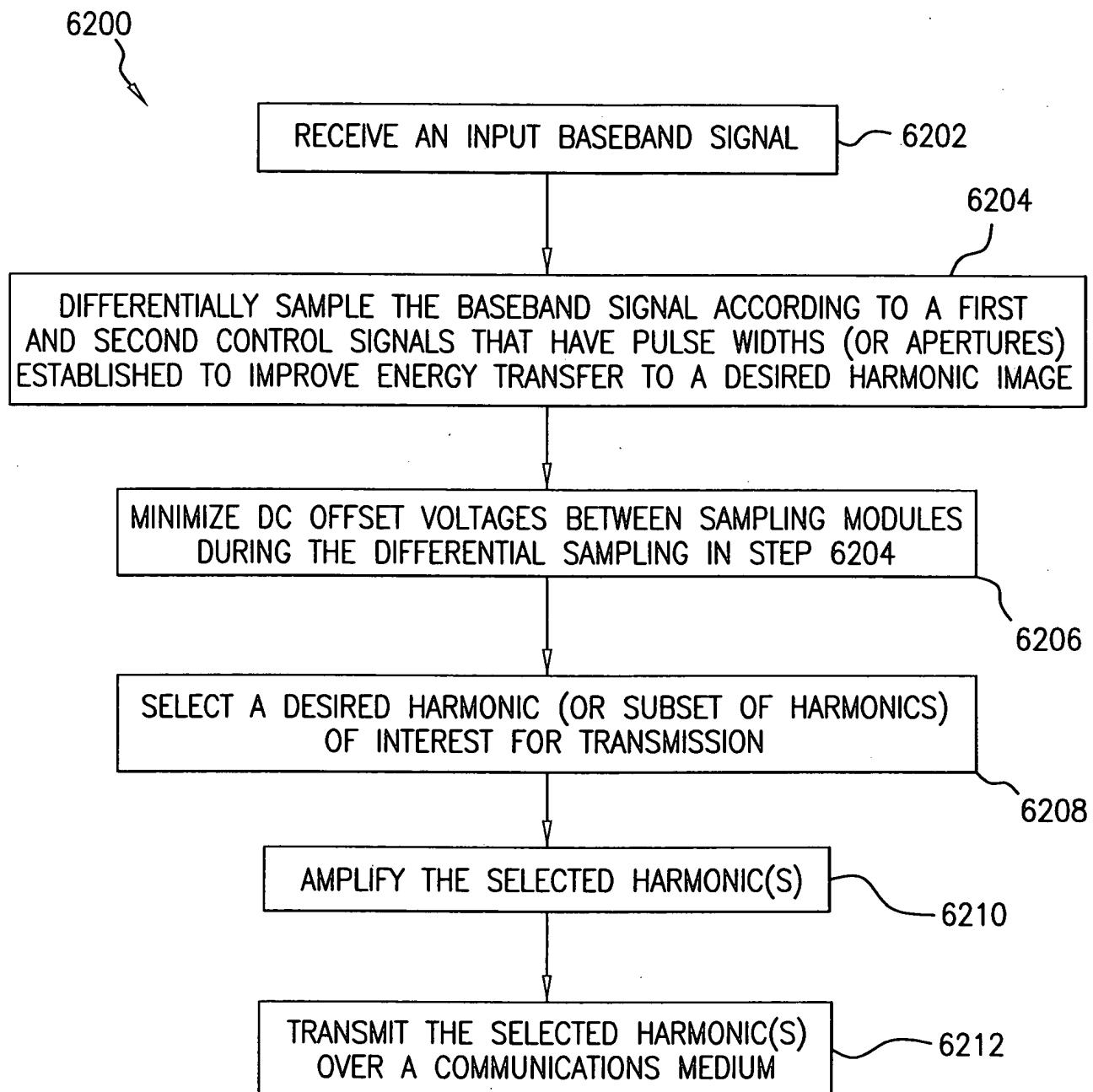


FIG.62

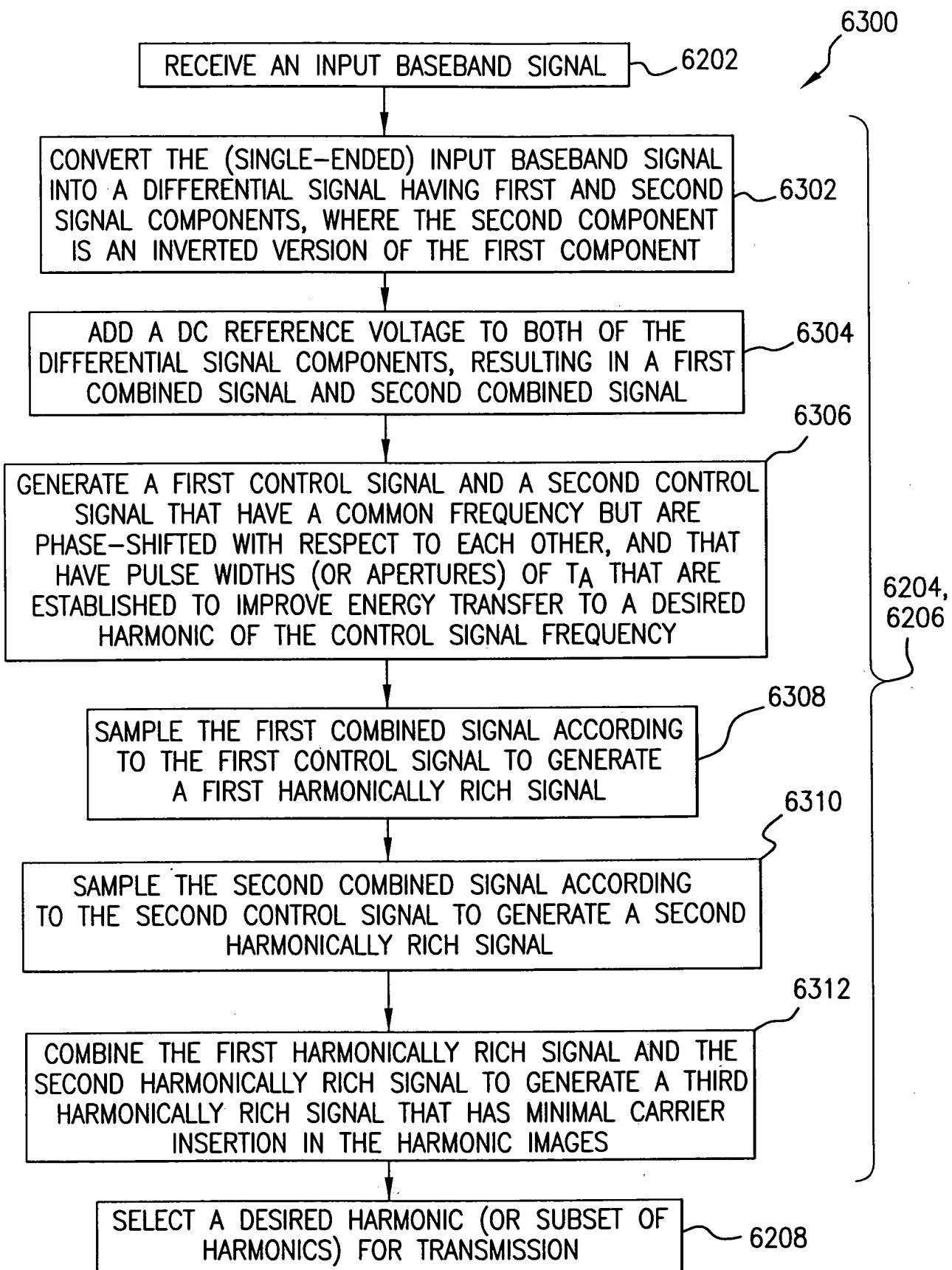


FIG.63

MAR 13 2006

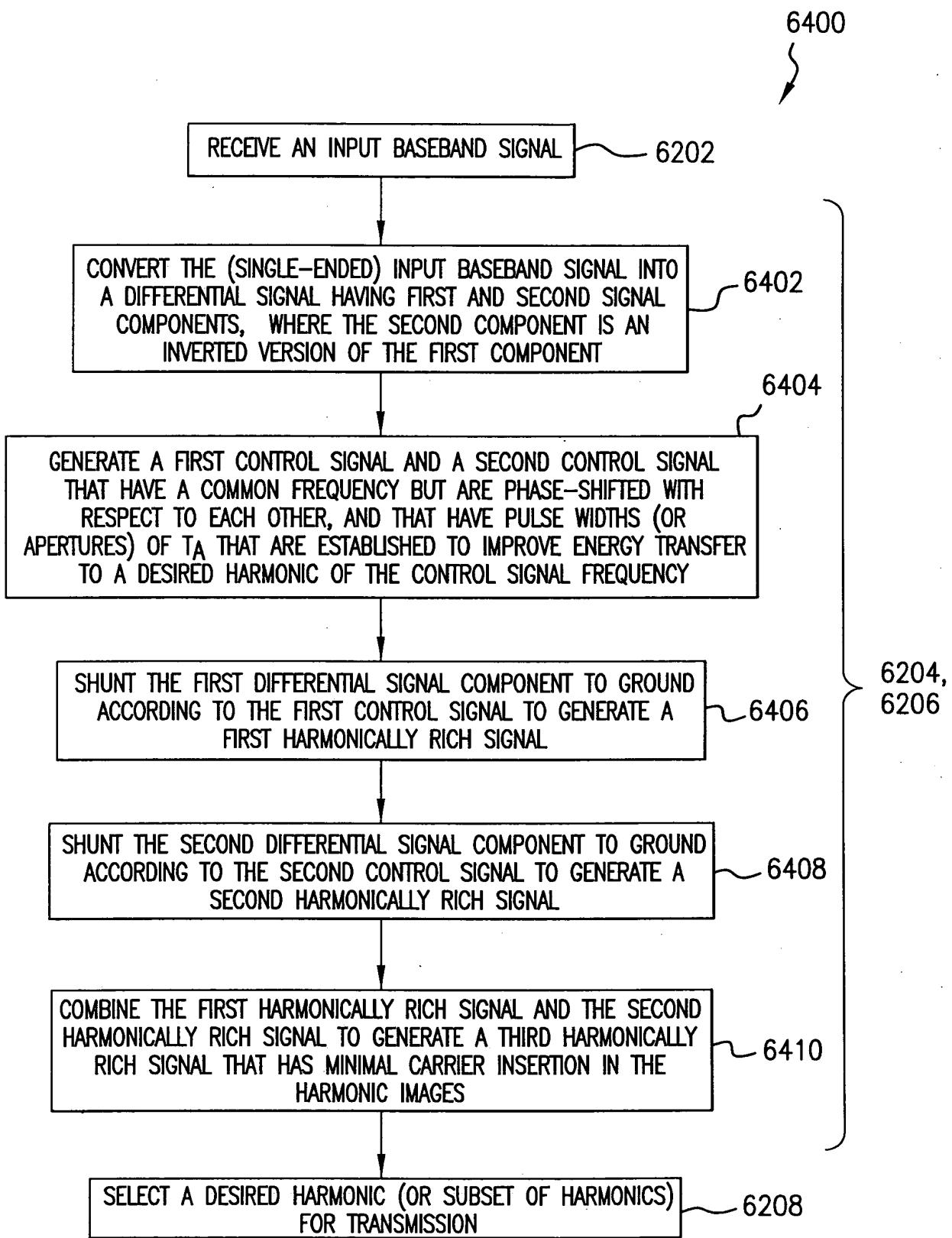


FIG.64

MAR 13 2006

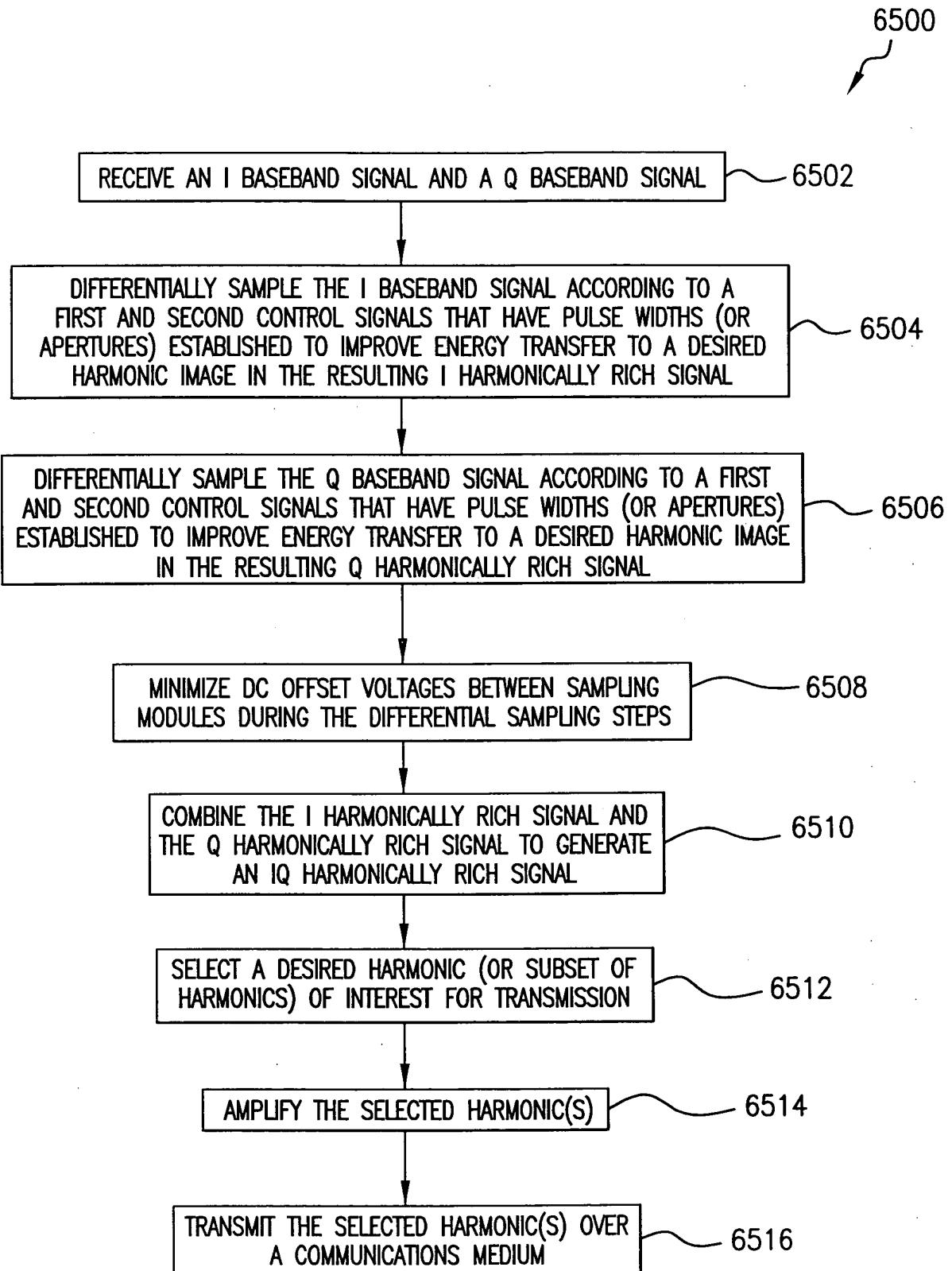


FIG.65

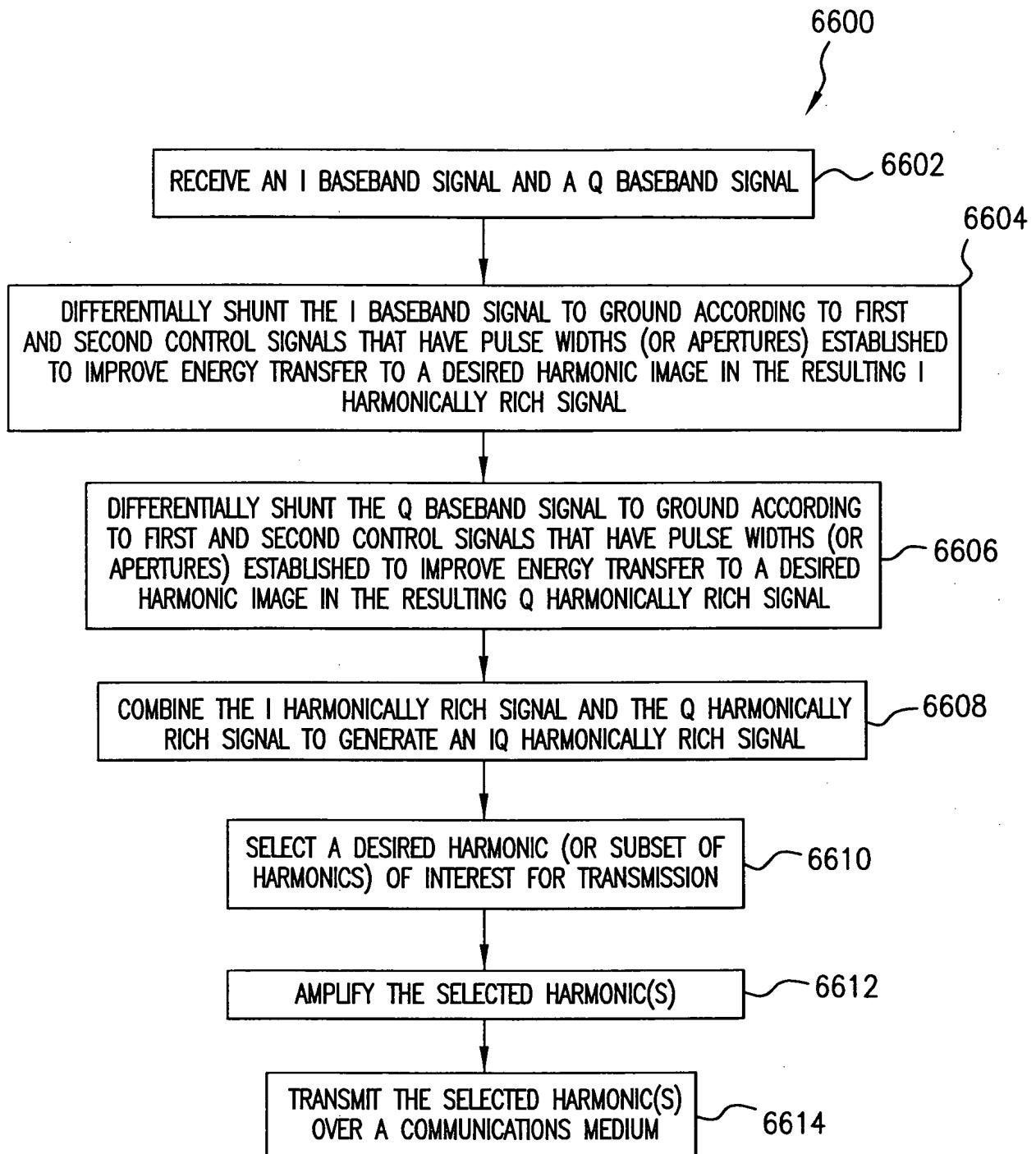


FIG.66

MAR 13 2006

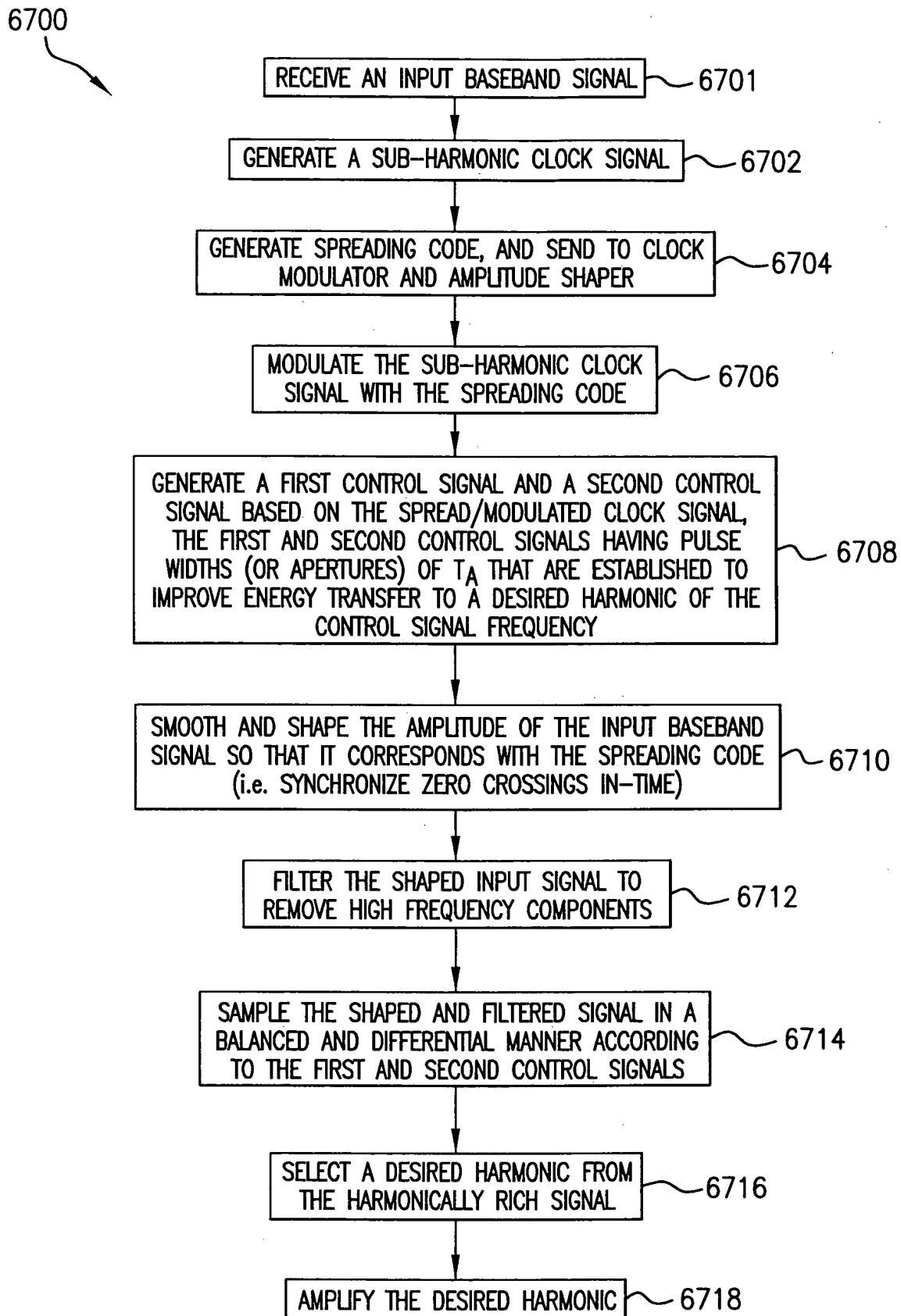


FIG.67

MAR 13 2006

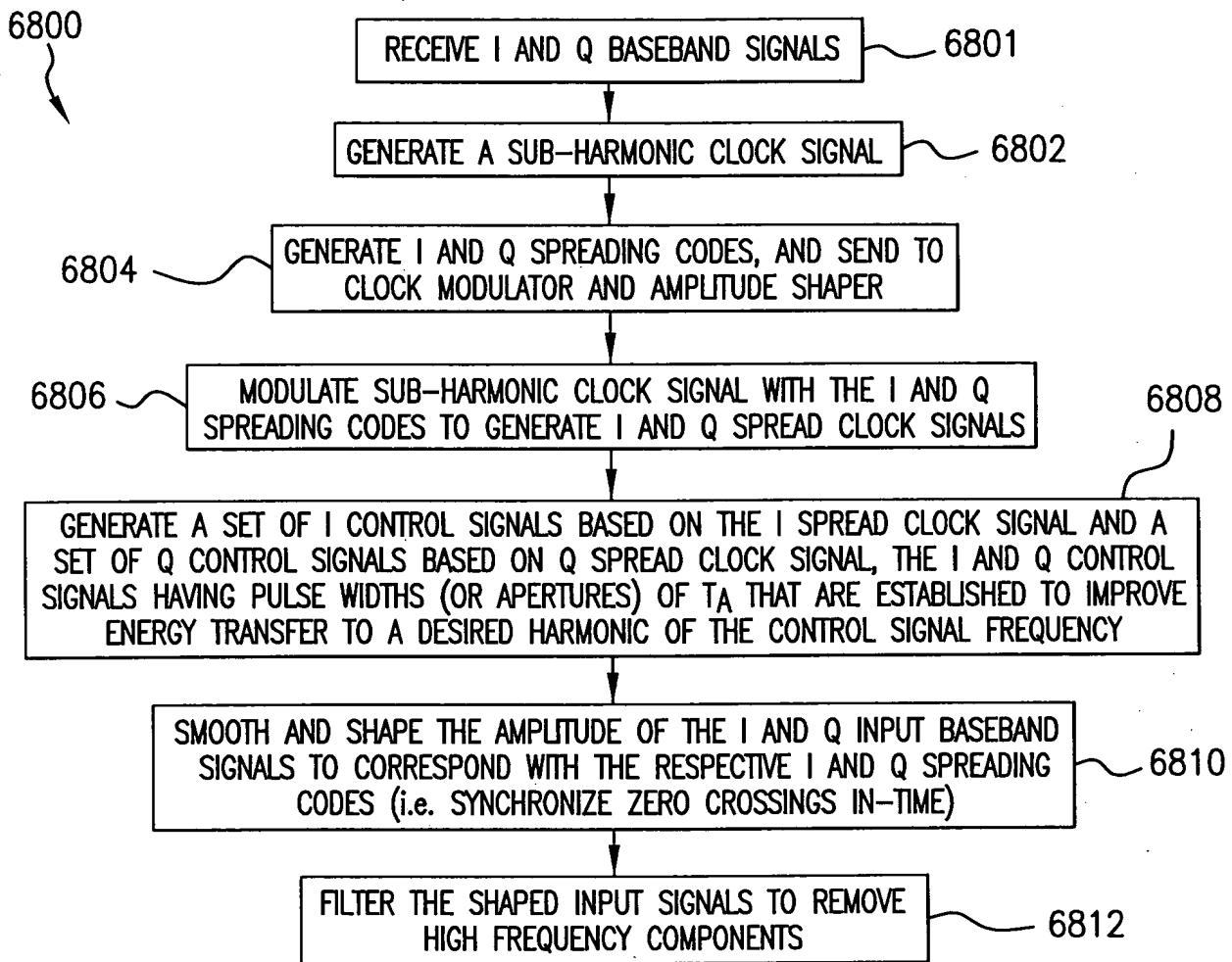


FIG.68A

6800  
(CONTINUED)

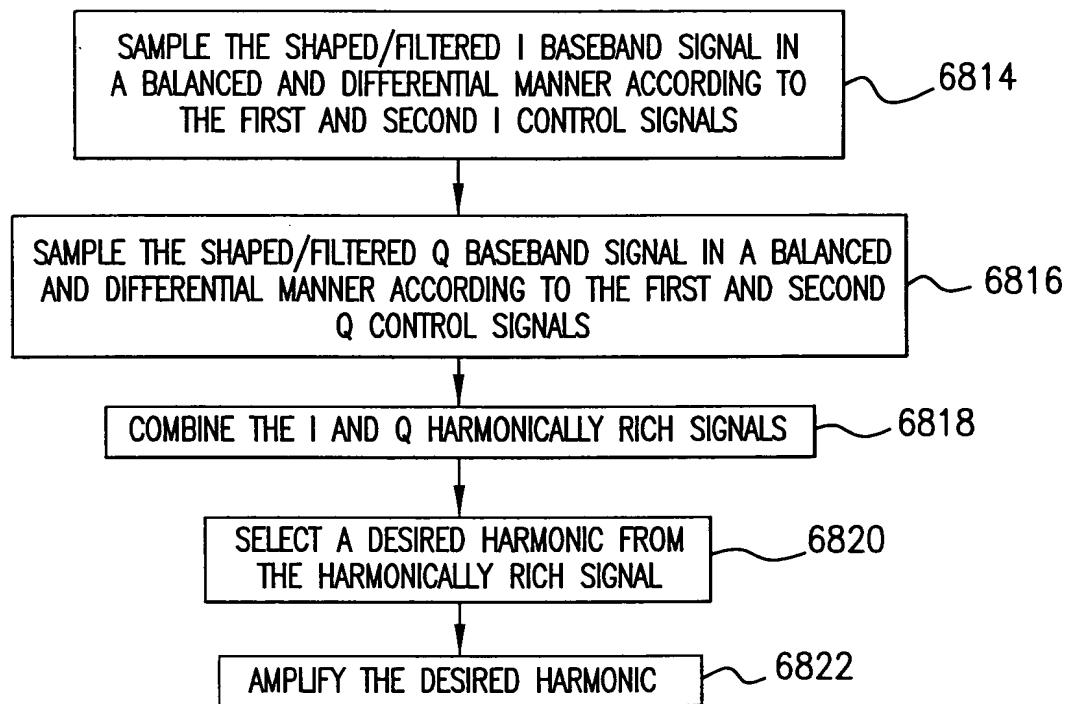


FIG.68B

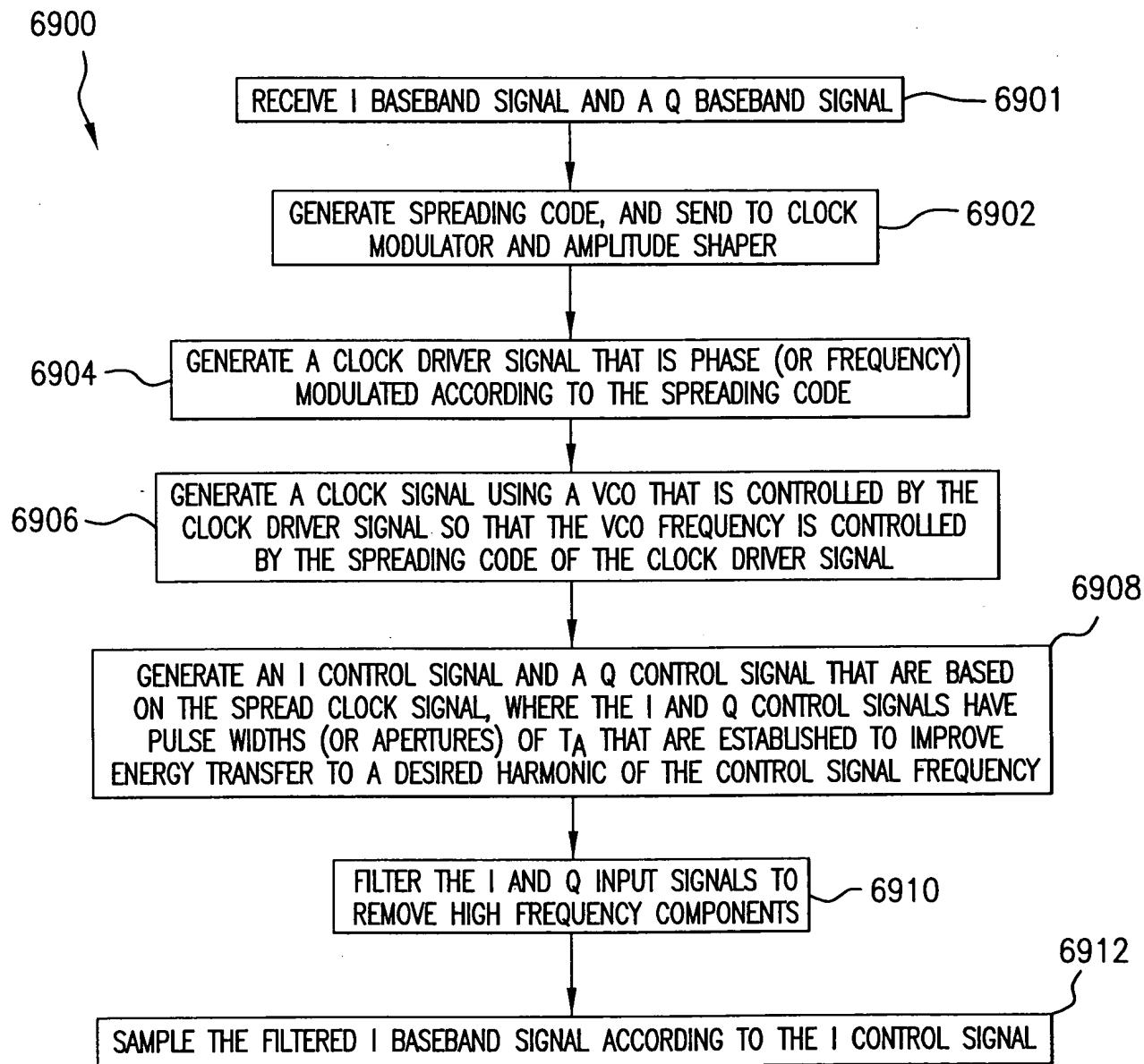


FIG. 69A

6900  
(CONTINUED)

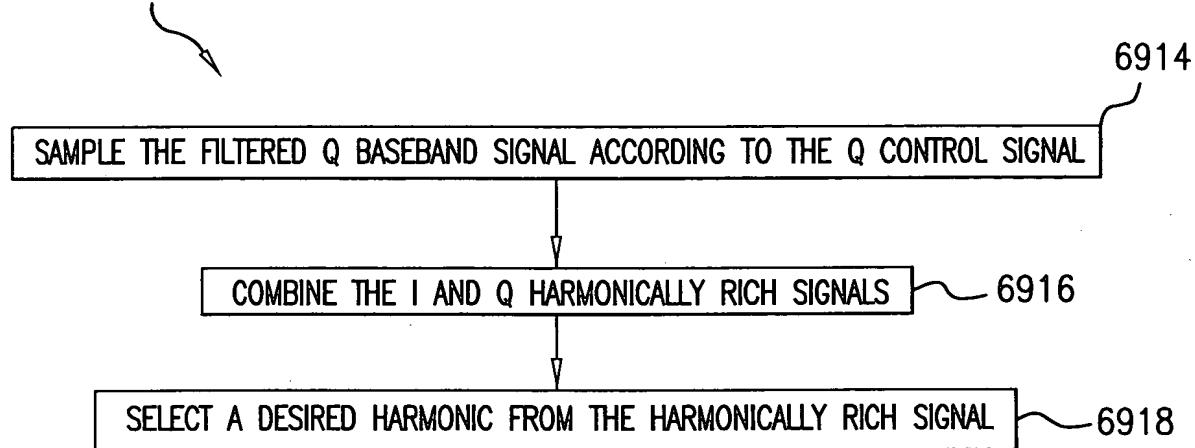


FIG.69B

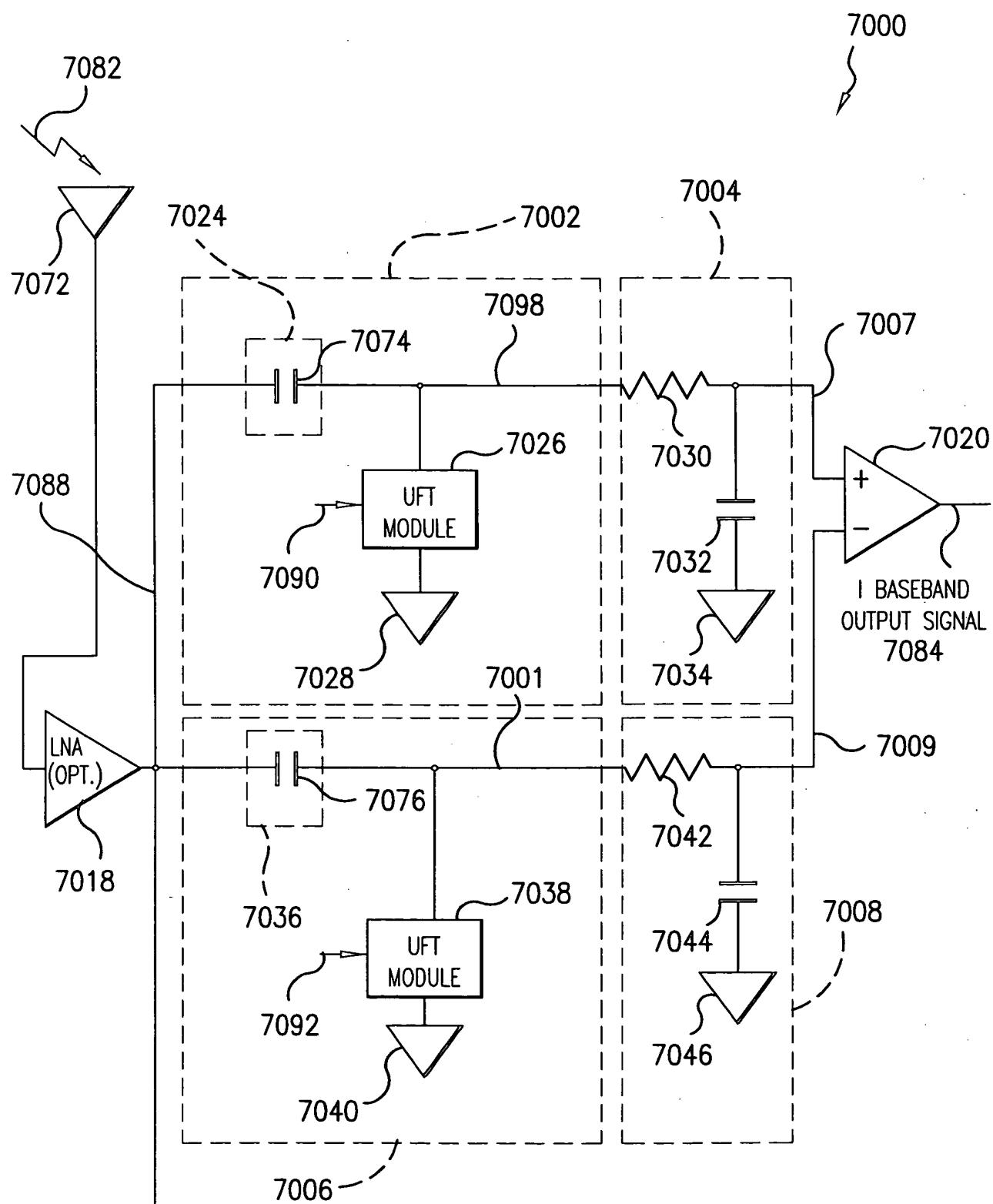


FIG.70A1

MAR 13 2005

FROM  
FIG.70A1

7000

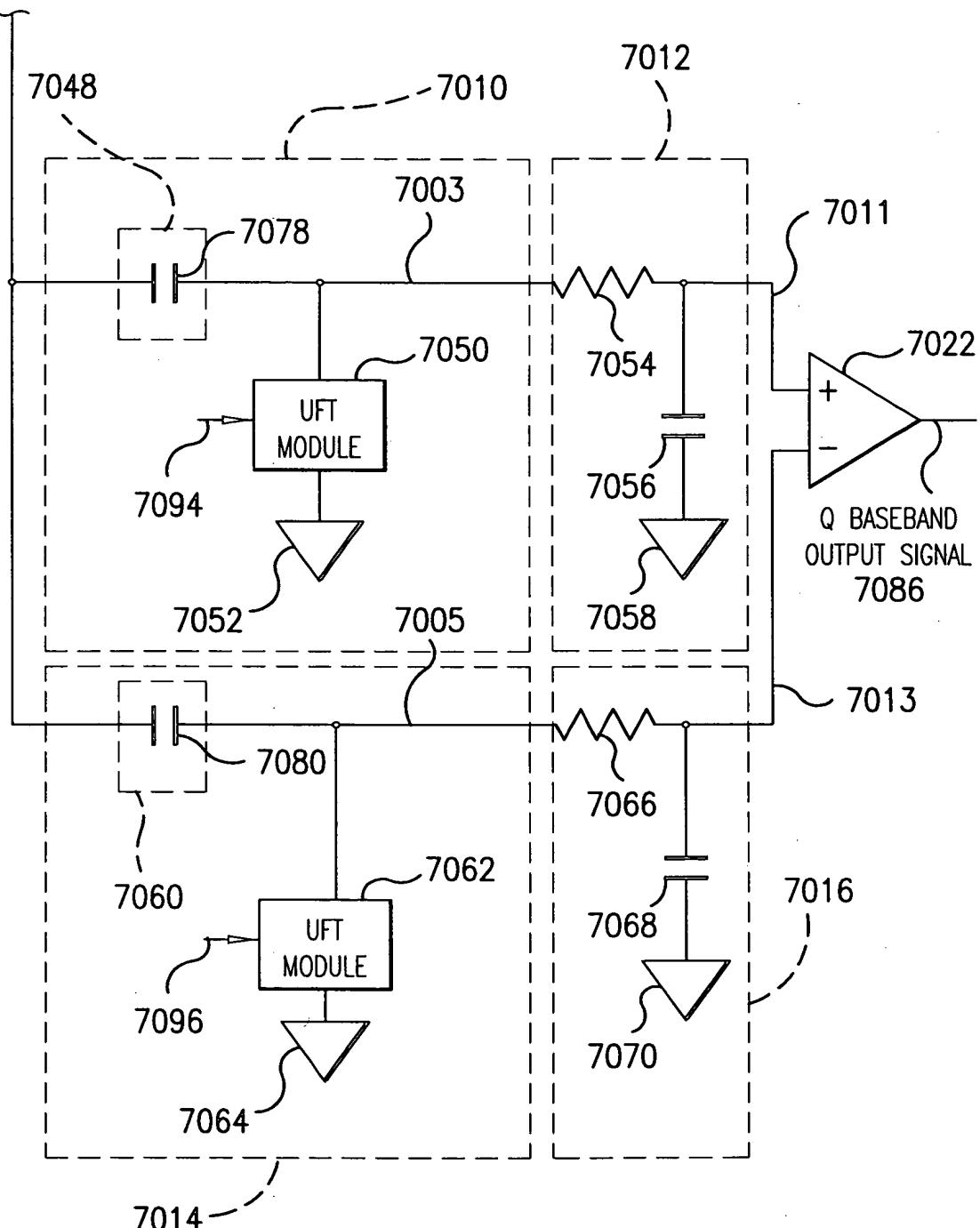


FIG.70A2

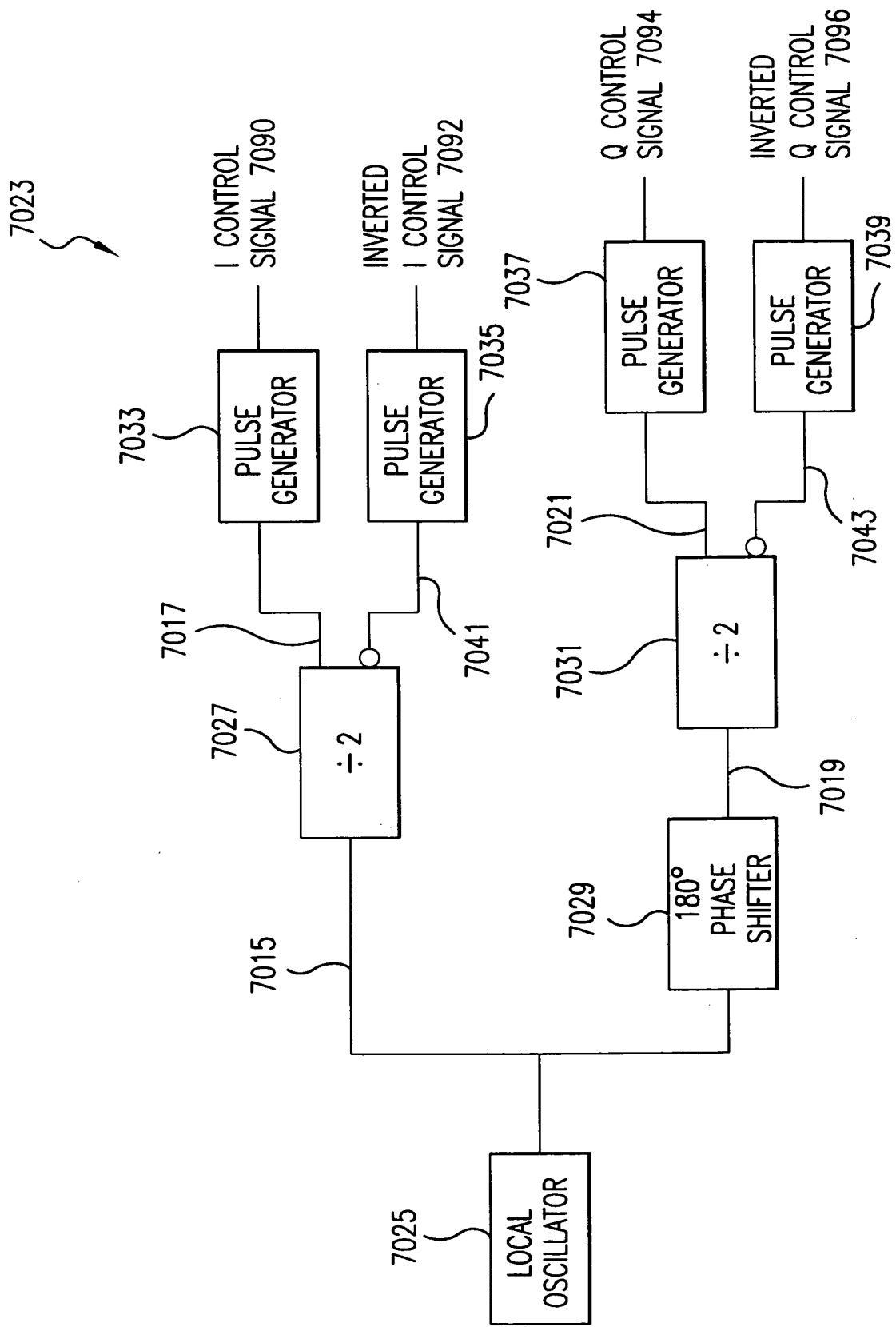


FIG.70B

LOCAL OSCILLATOR  
SIGNAL 7015

HALF FREQUENCY LO  
SIGNAL 7017

PHASE SHIFTED LO  
SIGNAL 7019

HALF FREQUENCY  
PHASE SHIFTED LO  
SIGNAL 7021

I CONTROL SIGNAL  
7090

INVERTED I CONTROL  
SIGNAL 7092

Q CONTROL SIGNAL  
7094

INVERTED Q CONTROL  
SIGNAL 7096

COMBINED CONTROL  
SIGNAL 7045

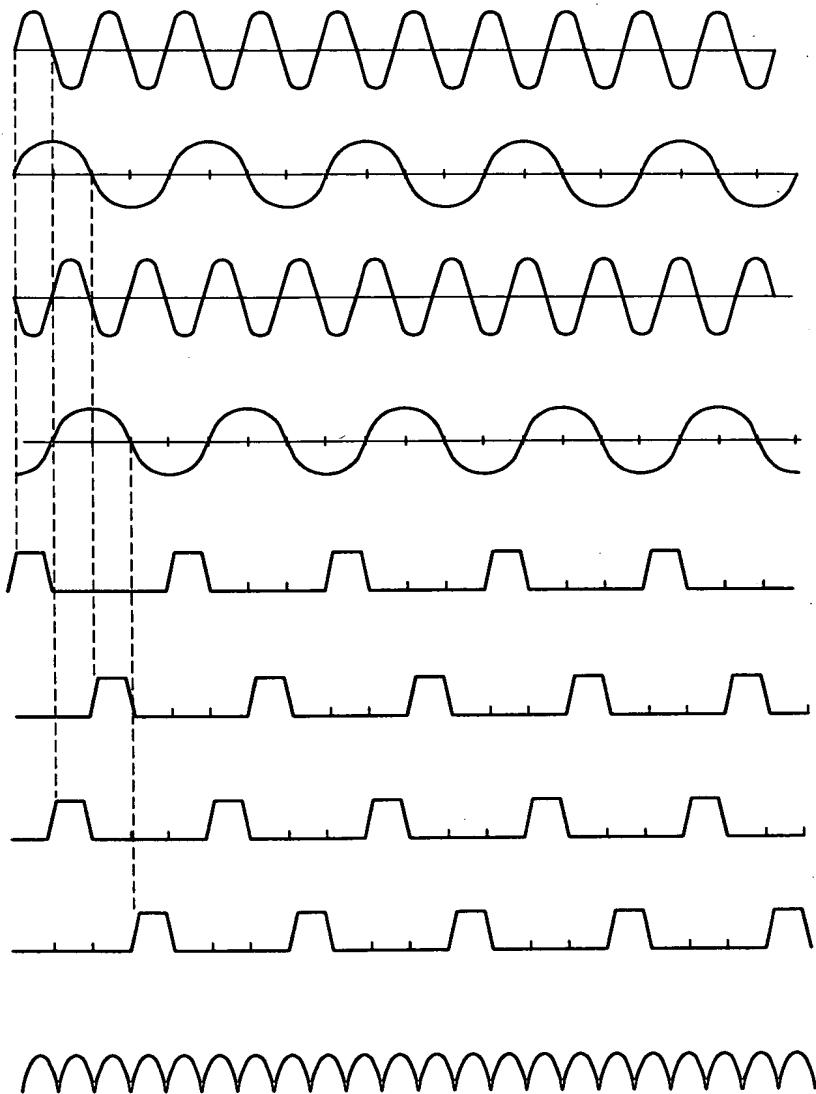


FIG.70C

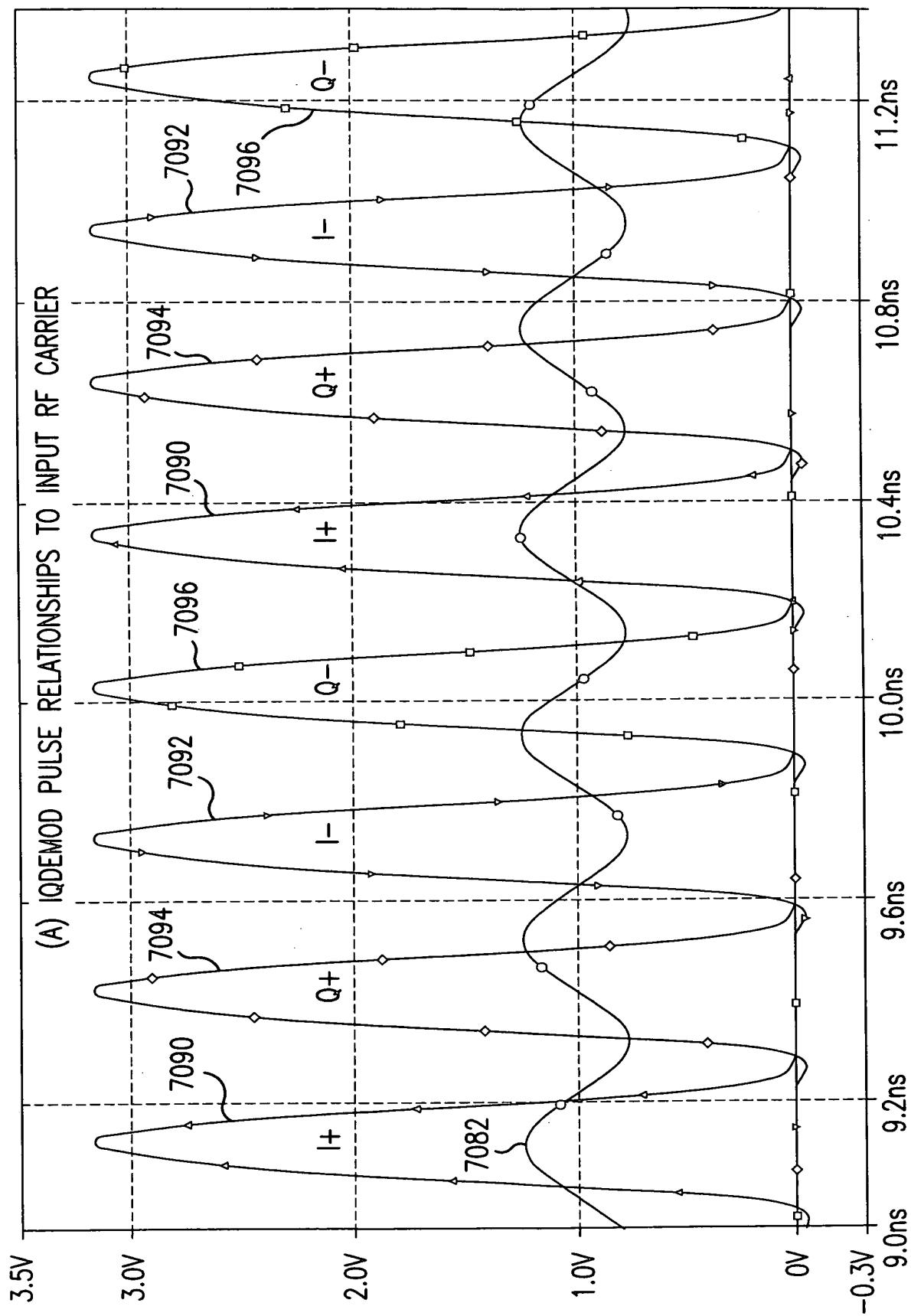


FIG. 70D

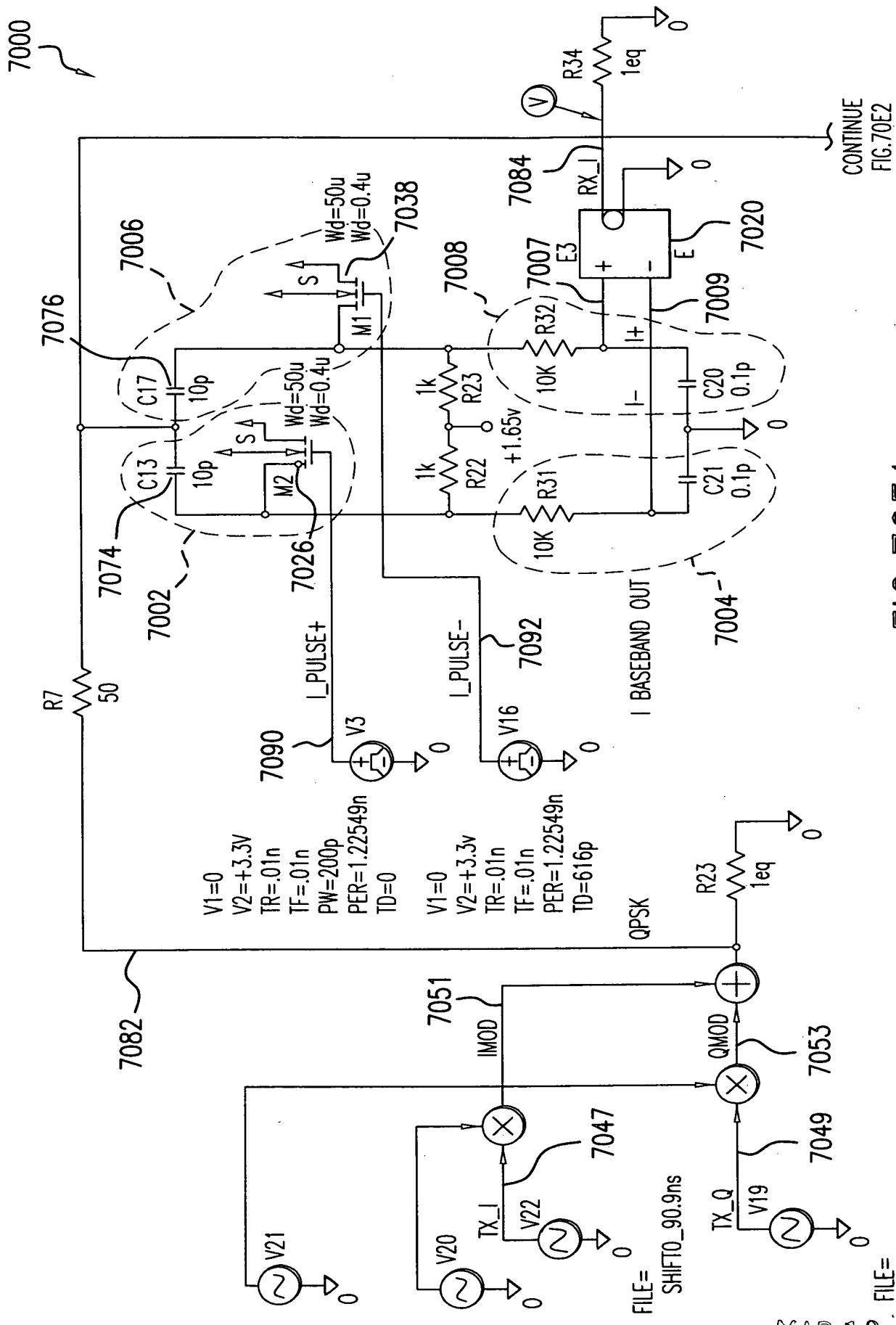


FIG. 70E1

FROM  
FIG.70E1

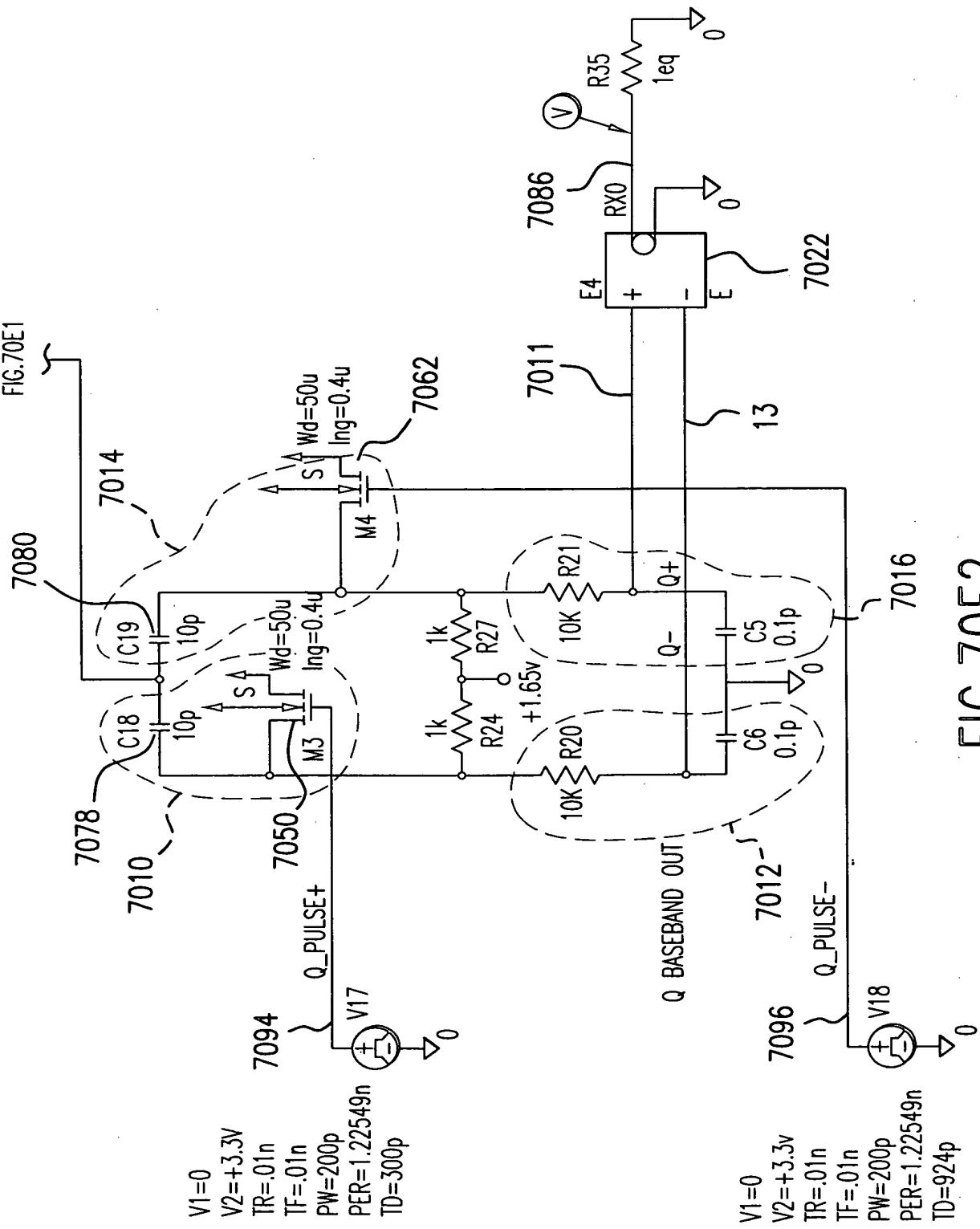


FIG.70E2

7047 IQDEMOD SHOWING TIME RELATIONSHIP OF TX\_I DATA

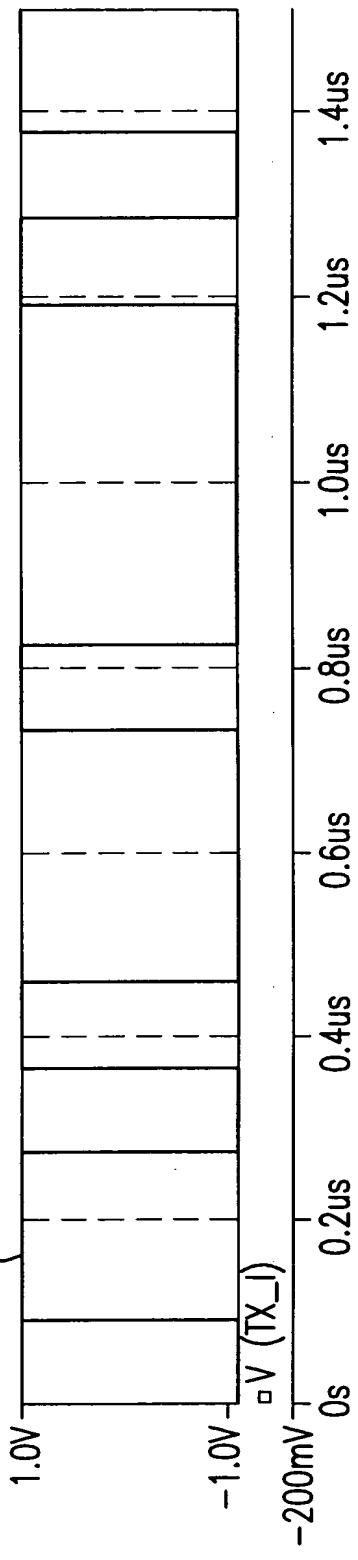


FIG.70F

7049 IQDEMOD SHOWING TIME RELATIONSHIP OF TX\_Q DATA

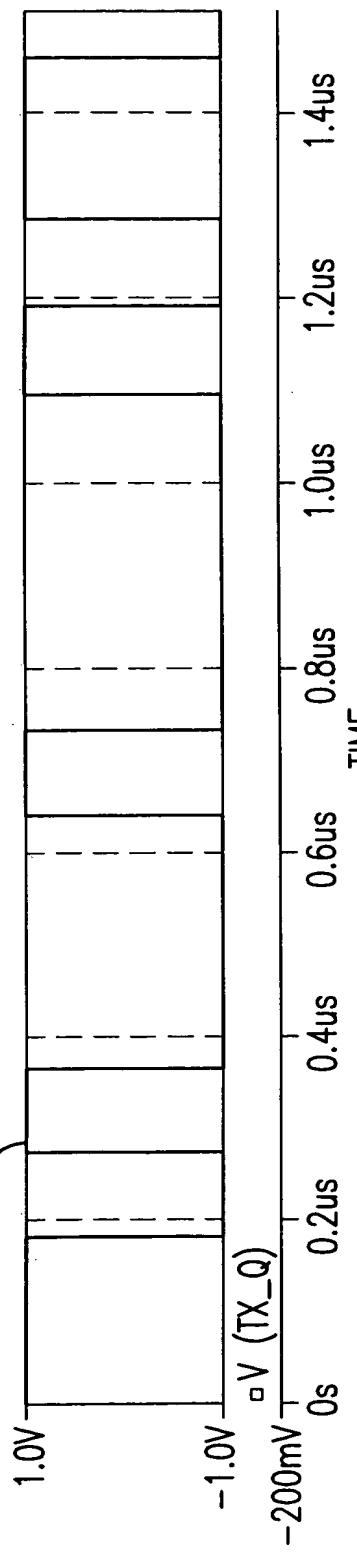


FIG.70G

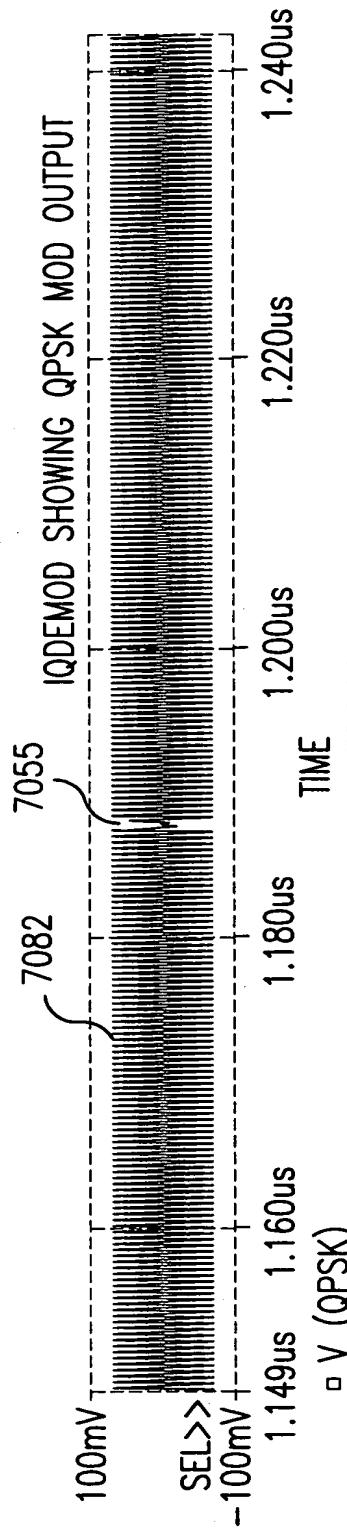


FIG. 70H

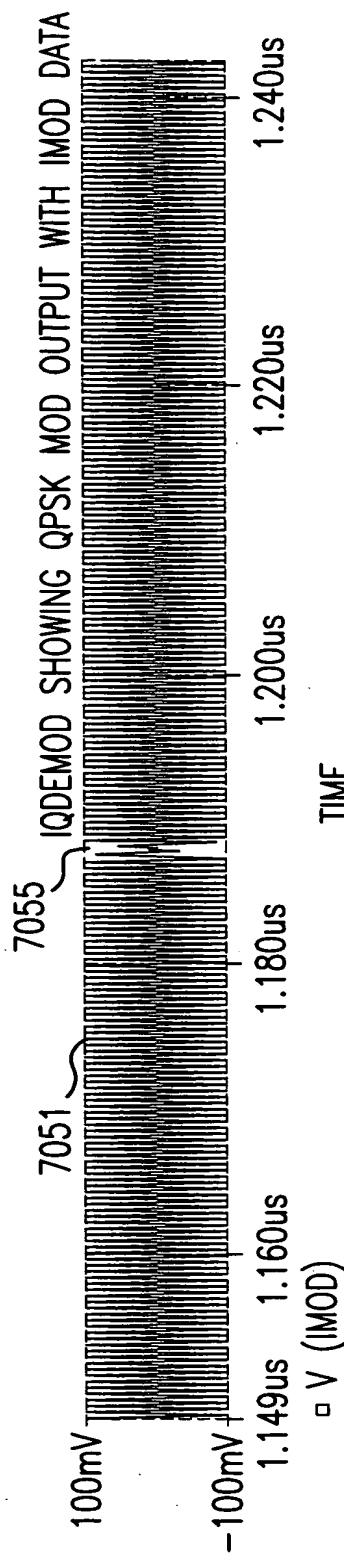


FIG. 70I

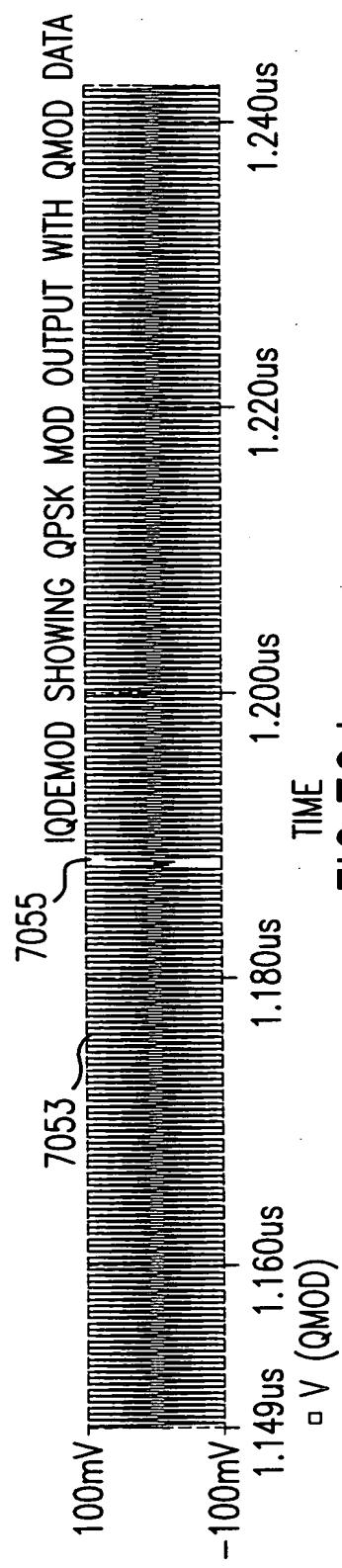


FIG. 70J

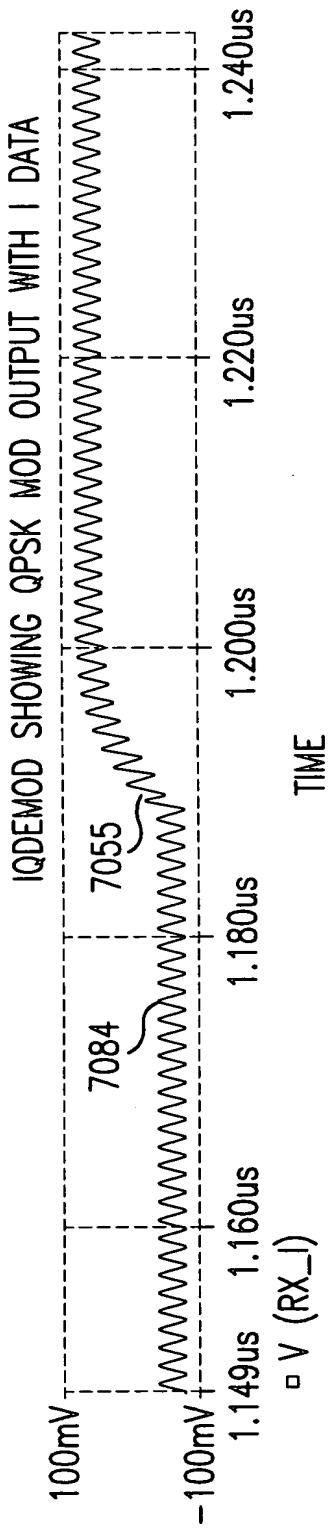


FIG.70K

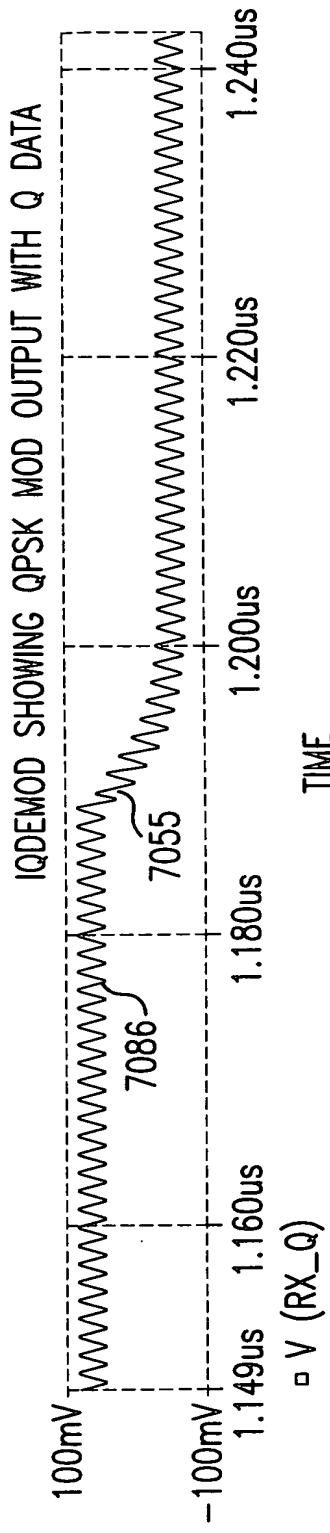


FIG.70L

IQDEM0D RELATIONSHIP OF I RECEIVED DATA DIFFERENTIAL SINGLE ENDED AFTER DIFFERENTIAL AMPLIFIER

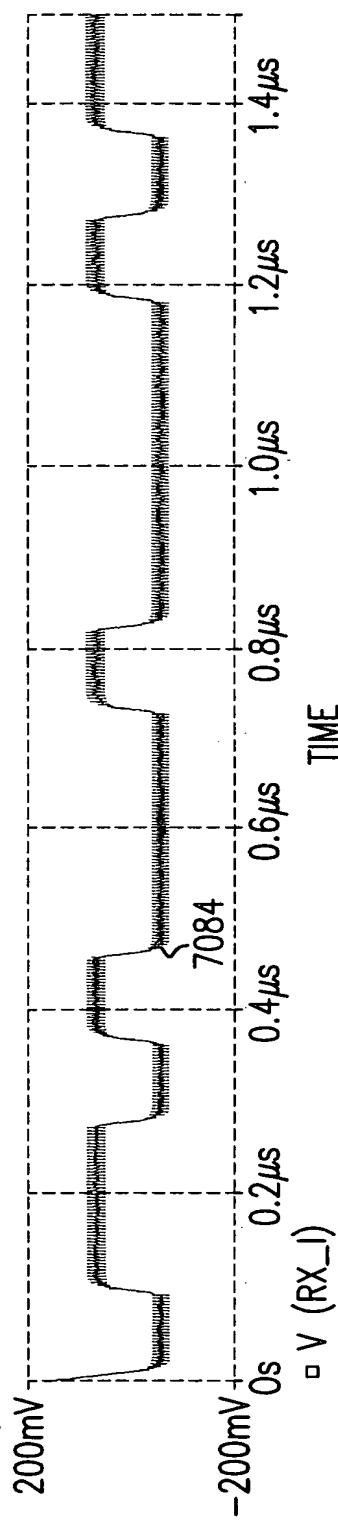


FIG.70M

IQDEM0D RELATIONSHIP OF Q RECEIVED DATA DIFFERENTIAL SINGLE ENDED AFTER DIFFERENTIAL AMPLIFIER

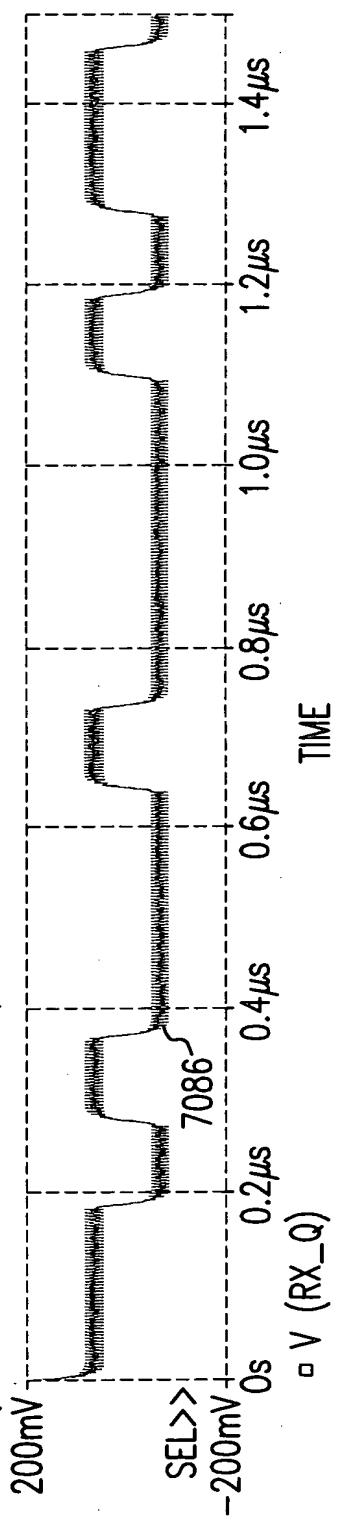


FIG.70N

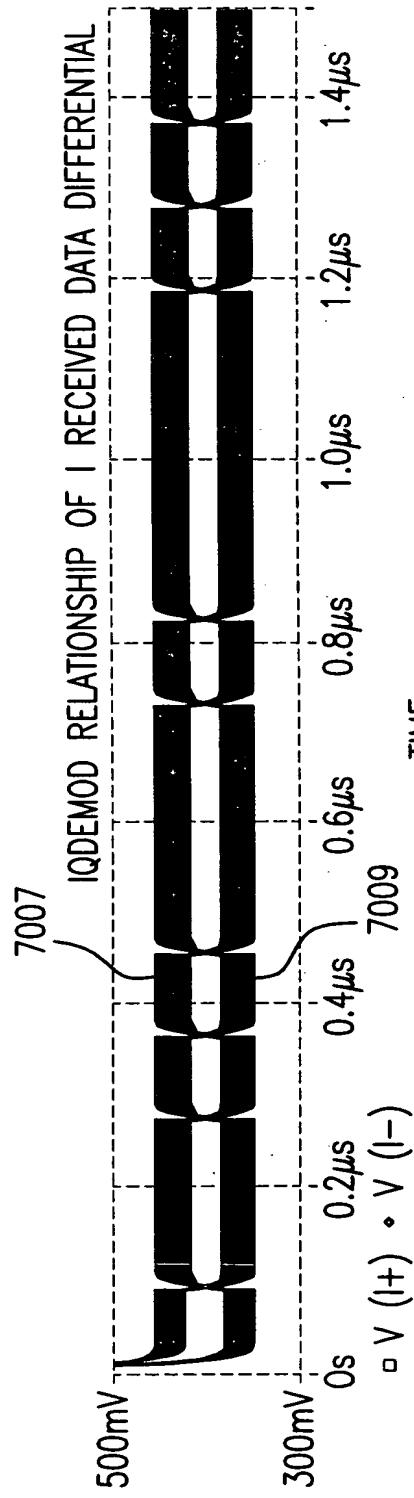


FIG.700

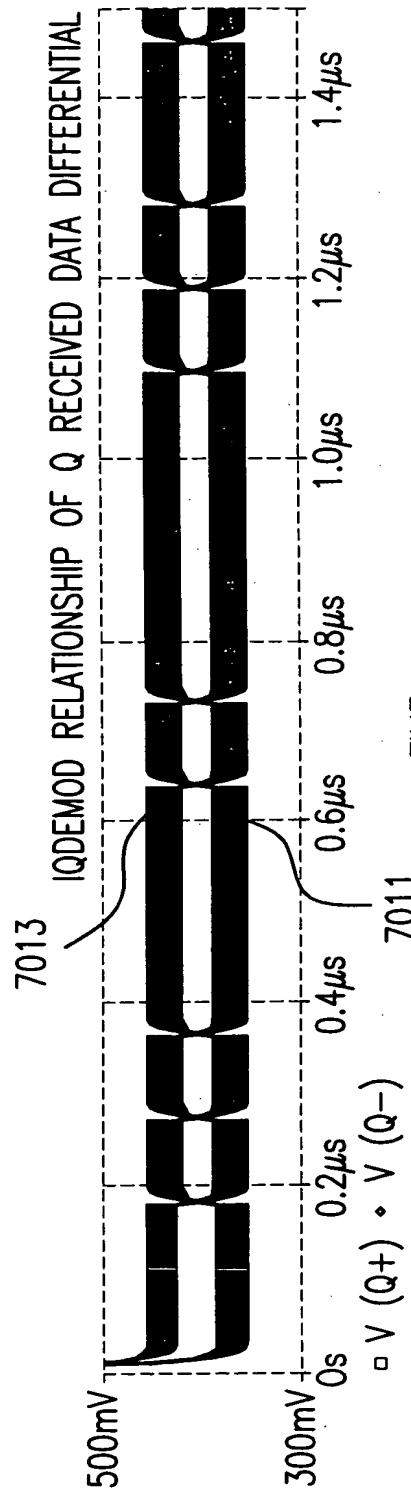


FIG.70P

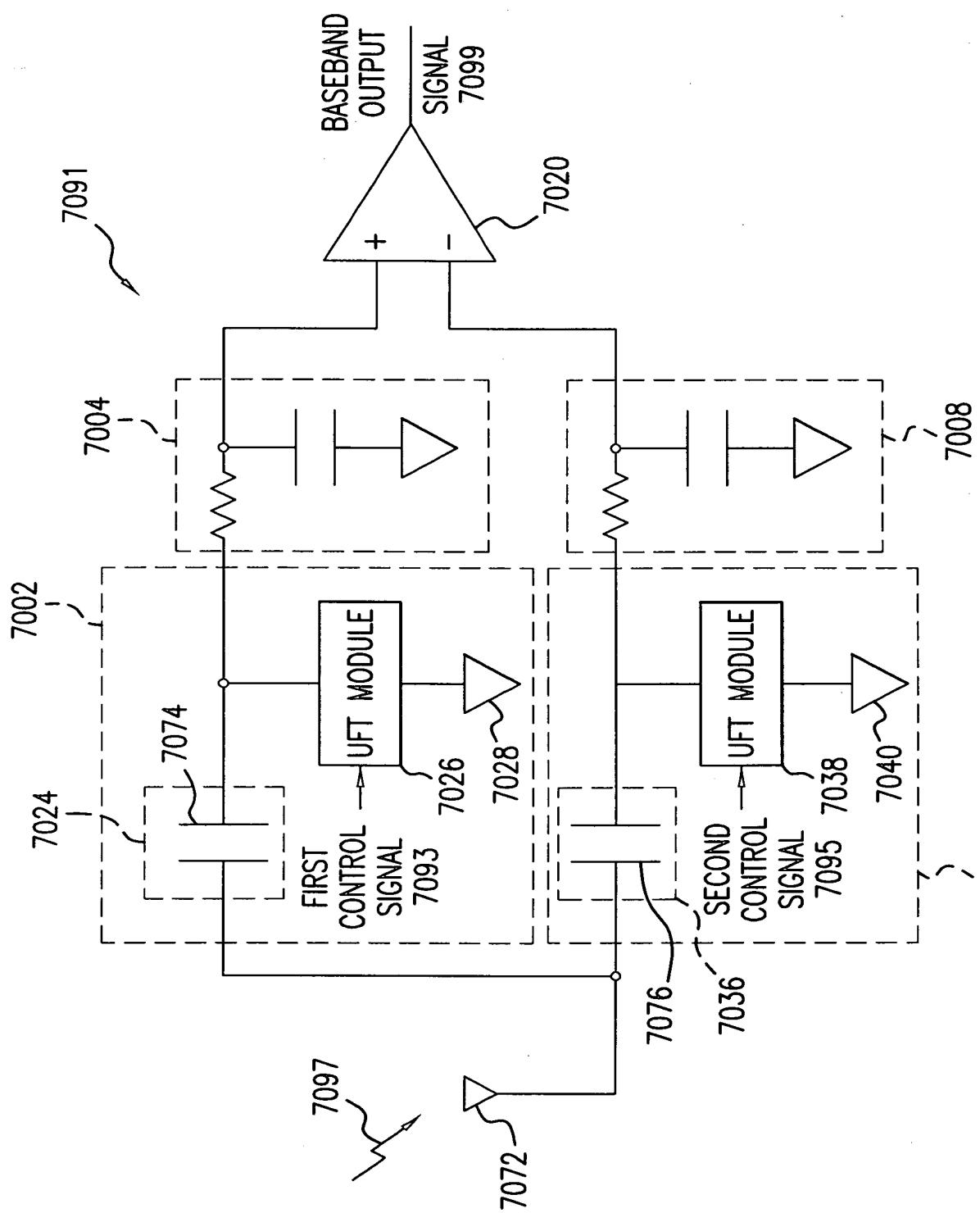


FIG. 70Q

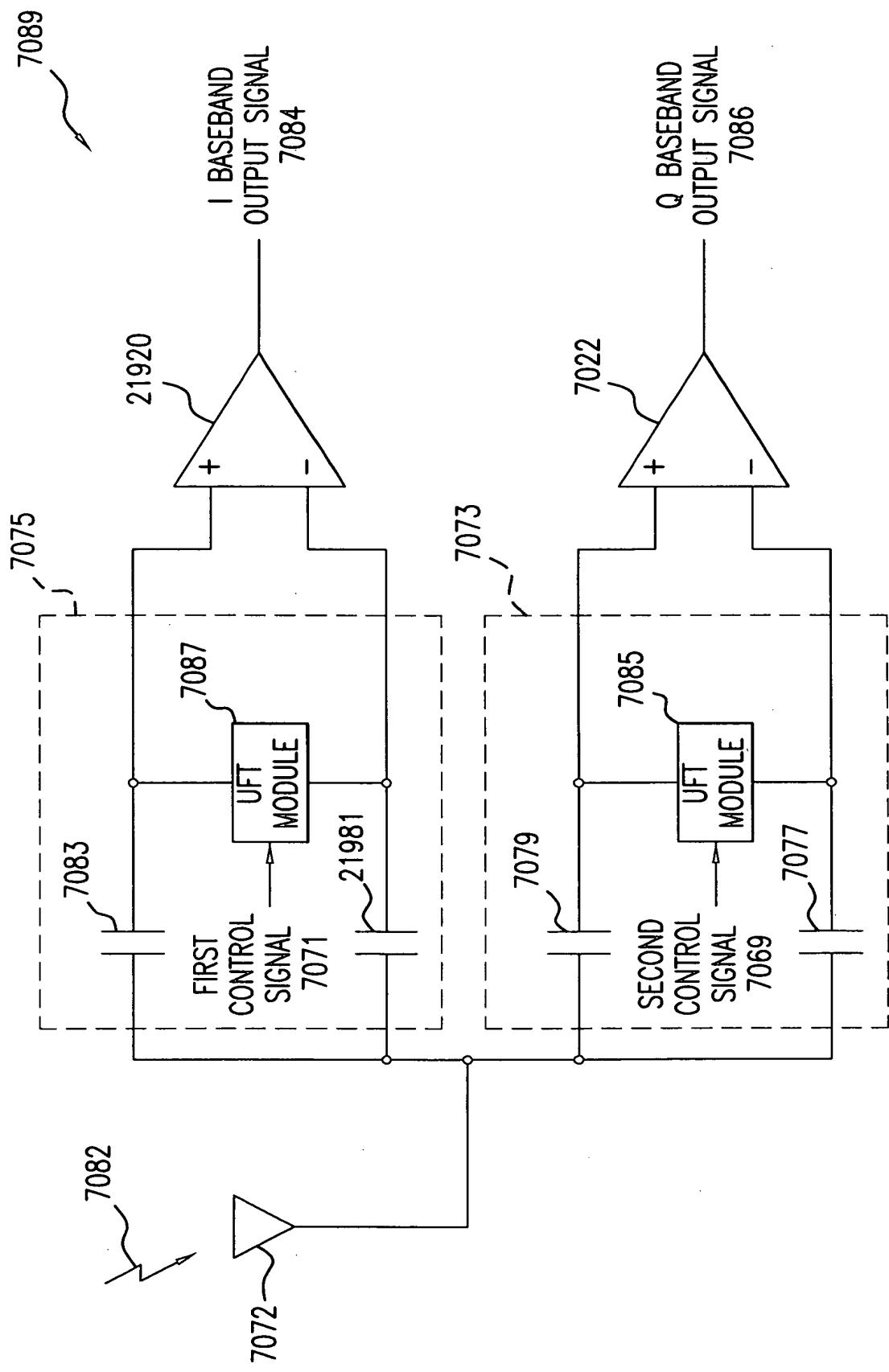
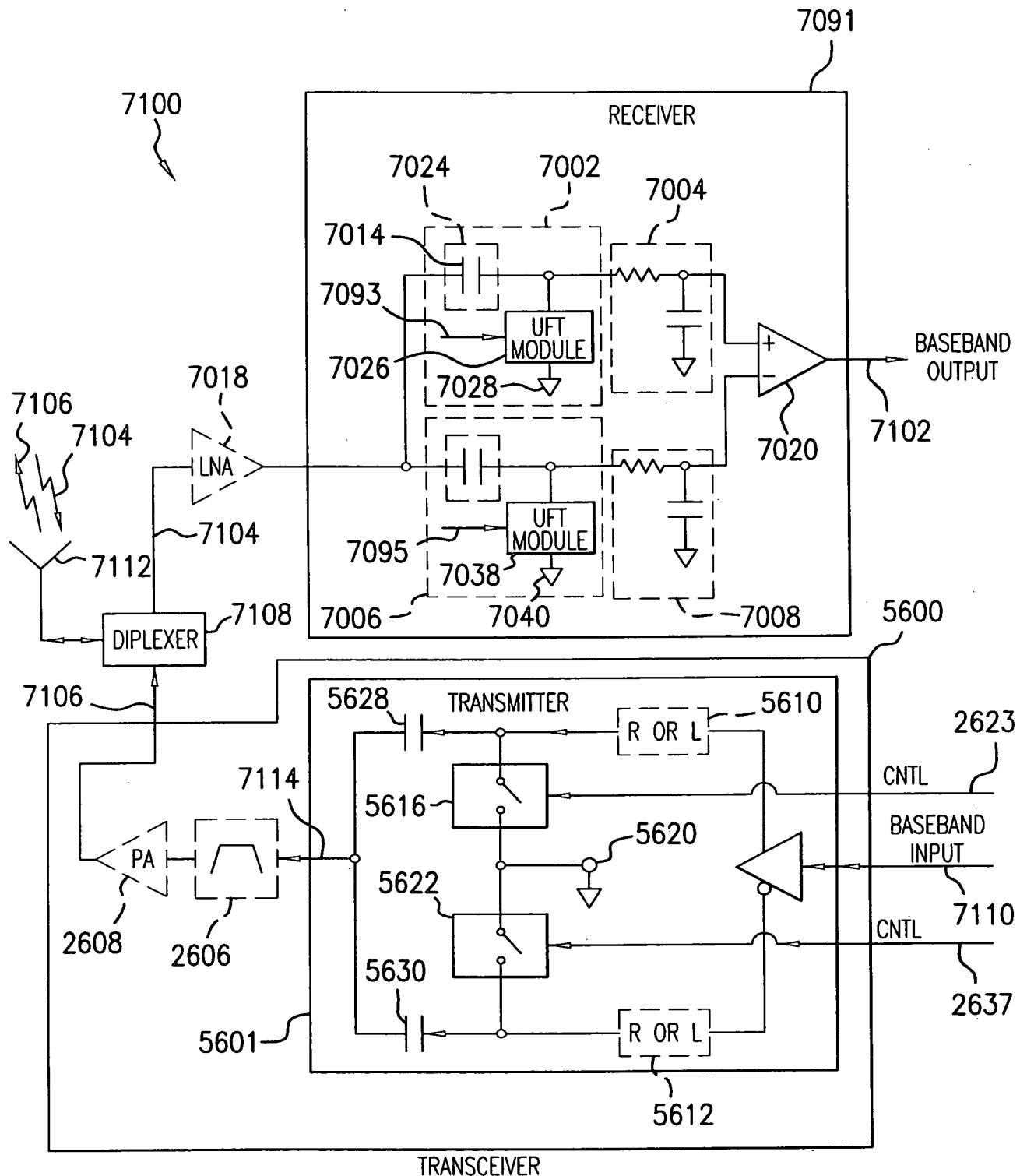


FIG. 70R



TRANSCEIVER

FIG.71

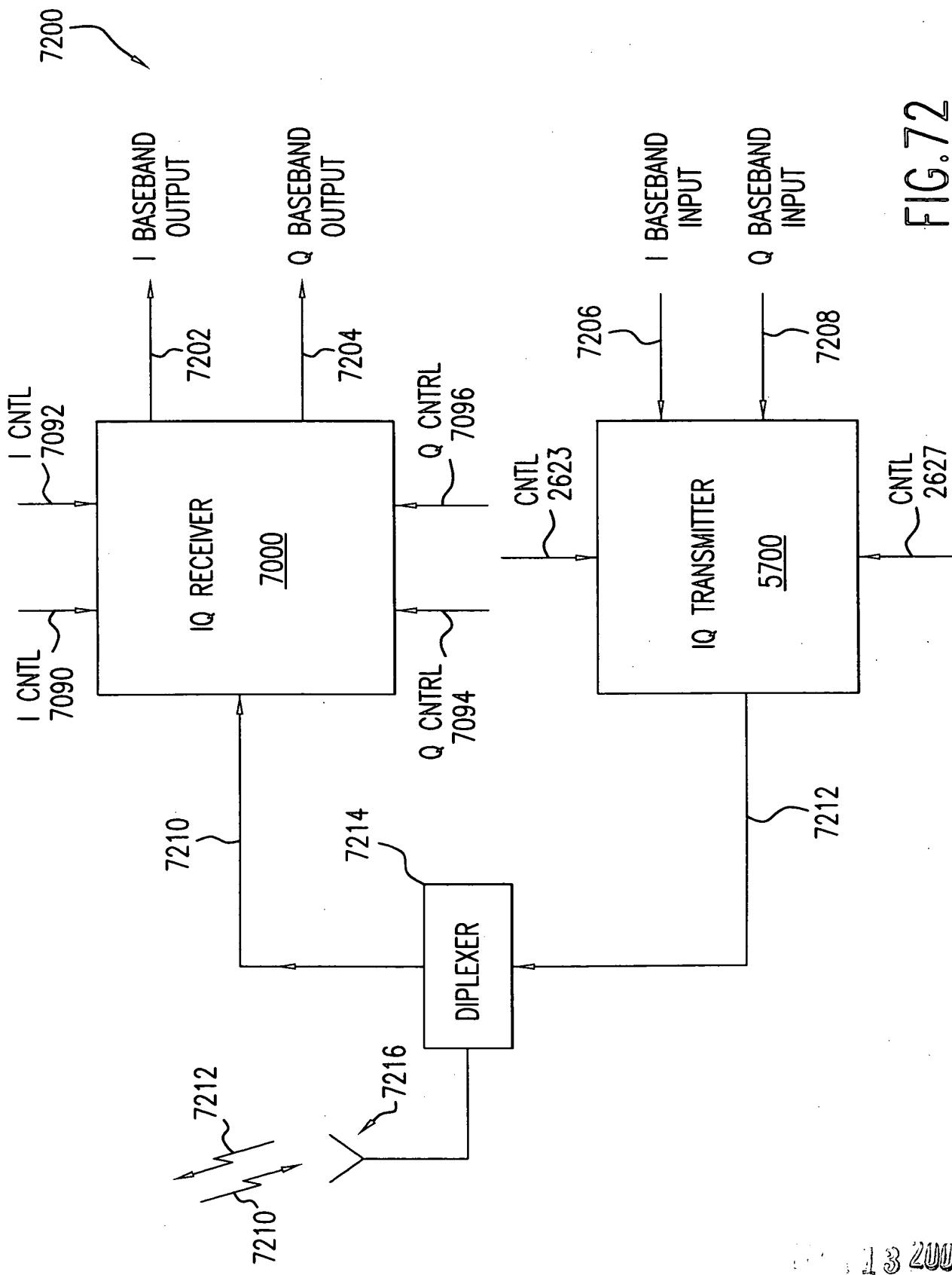


FIG. 72

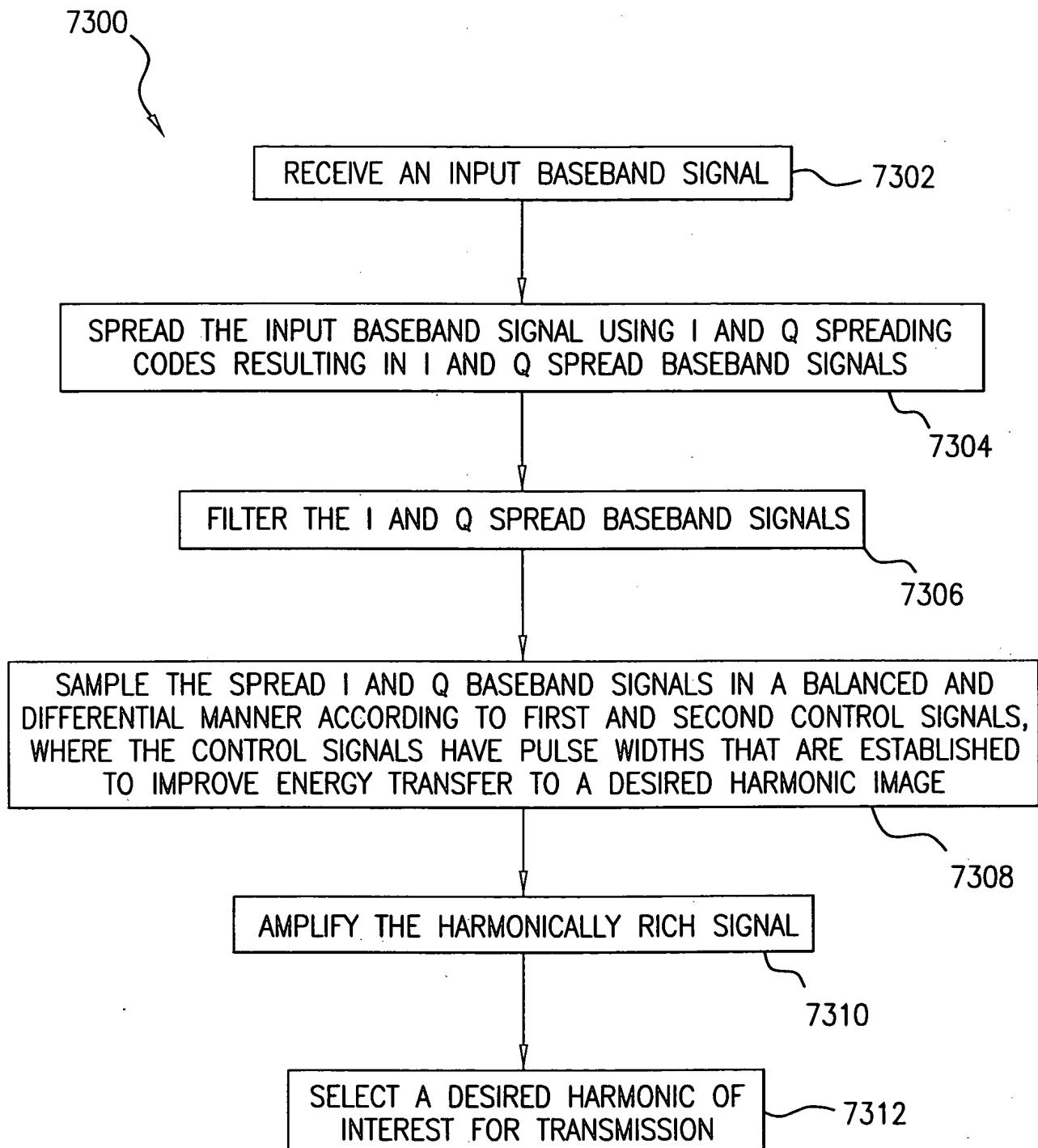
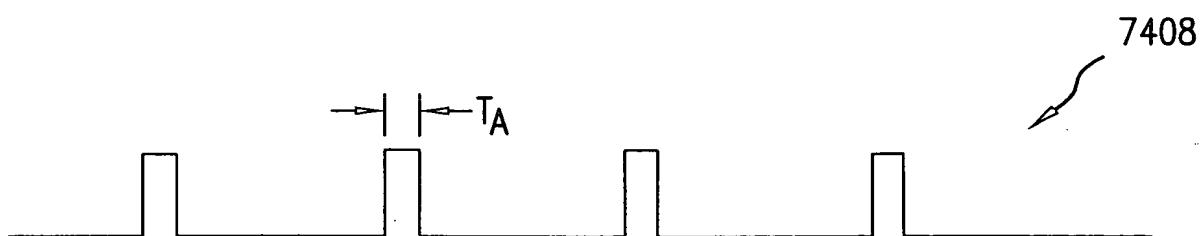
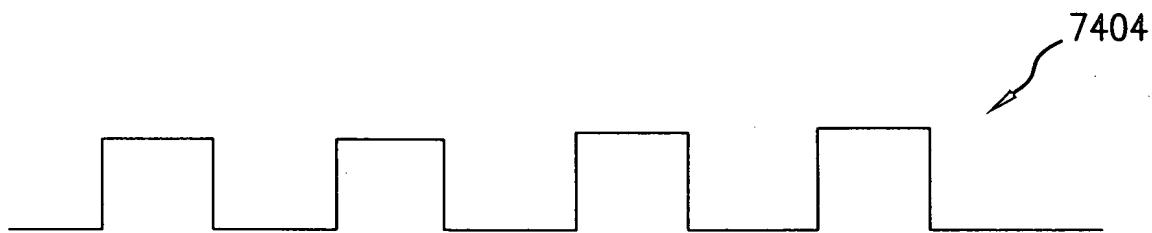
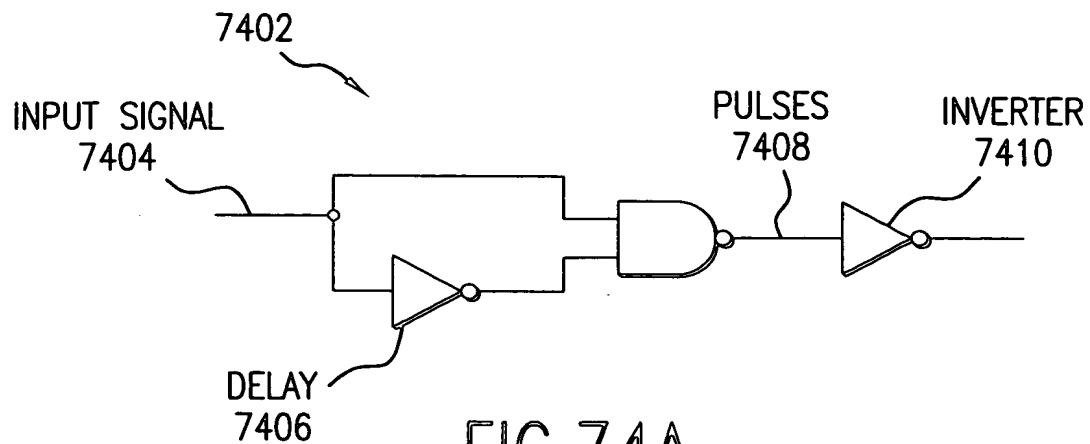
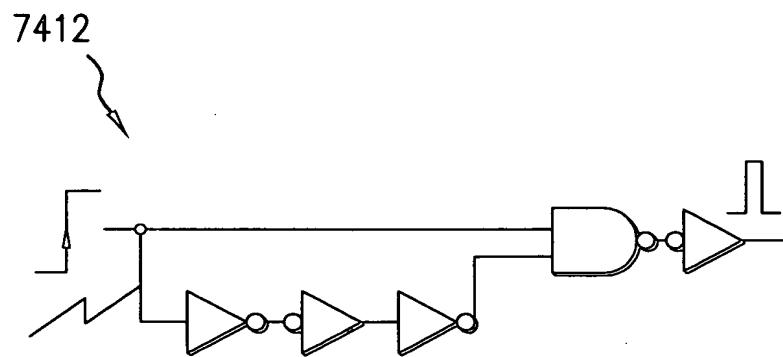


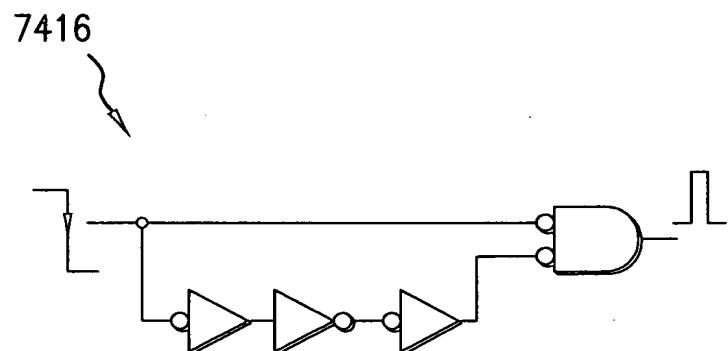
FIG.73





## RISING EDGE PULSE GENERATOR

FIG. 74D



## FALLING-EDGE PULSE GENERATOR

FIG. 74E